

Motivations, Satisfaction and Expenditures of Recreational Pelagic Charter Fishing Patrons in Hawaii

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ABSTRACT

Recreational pelagic charter fishing is a notable component of tourism in Hawaii with direct revenues of approximately \$17 million, indirect revenues of over \$30 million and an estimated 77,000 annual participants. For the purpose of this study pelagic charter fishing is defined as trips on six-person vessels that primarily target Istiophoridae (blue marlin, *Makaira mazara*, and striped marlin, *Tetrapturus audax*) and are chartered for a daily fee. This study describes several aspects of the charter fishing experience, including patrons' motivations for coming to Hawaii and going charter fishing, their related expenses, valuation of the fishing experience in dollar terms, and the characteristics of the quality of the fishing experience. Information was obtained by distributing mail-in survey instruments to patrons at the end of their fishing trips.

A total of 1943 survey instruments were distributed and 328 were returned. Return rates varied greatly depending upon the source of distribution (13% and 70% by those distributed by charter captains and by researchers, respectively). The results of the survey instruments distributed by the researcher as well as the in-person interviews detected no 'distribution' or 'return' biases due to using captains as the primary source of survey distribution.

Typical charter fishing patrons are educated, relatively prosperous, middle-class American males. Generally speaking, charter fishing is not a primary attraction for travelling to Hawaii. Despite overall dissatisfaction with the amount of fish caught, charter patrons were apparently satisfied with the Hawaii charter fishing experience, which was largely due to a positive relationship between the patrons and the charter boat captain and crew. Contingent valuation questions revealed that most charter patrons would rather fish than accept monetary compensation and many would be willing to pay a small amount (< \$25) for a daily fishing license. Objections to the license fee were based on ideological beliefs at lower fee levels and economic restrictions at higher fee levels. Results also indicated that the majority of patrons support catch/tag and release programs, especially over keeping billfish for personal consumption, sale or mounting. Other information such as reported catch, disposition of catch, and motivations and expenditures involved with visiting and going charter fishing in Hawaii are also reported.

Contents

1. Recreational Pelagic Charter Fishing Patron Survey.....	1
1.1 Introduction.....	1
1.2 Methods	2
1.3 Results and Discussion	4
1.3.1 Survey instrument distribution and response rate.....	4
1.3.2 In-person interviews.....	4
1.3.3 Charter fishing patron demographics.....	5
1.3.4 Hawaii trip related decisions	7
1.3.5 Charter fishing trip related decisions	9
1.3.6 Charter fishing trip details.....	12
1.3.7 Basic perceptions about charter fishing in Hawaii	12
1.3.8 Fishing success and disposition of catch.....	13
1.3.9 Charter fishing patrons' satisfaction with the fishing trip.....	15
1.3.10 Expenditures	16
1.3.10.1 Economic characteristics of the trip to Hawaii	16
1.3.10.2 Economics and valuation aspects of the charter fishing trip.....	17
1.3.11 'Highrollers' comparison	21
1.3.12 Comparison with other Hawaii charter fishing patron studies	21
1.4 Summary.....	22
2. The Guest-Host Interface: A Description and Assessment of the Culture and Economics of Charter Fishing in Hawaii	23
2.1 Introduction and background	23
2.2 Fishing as tourism: A sociocultural and economic theoretical framework	24
2.3 Contemporary charter fishing	24
2.4 The tourist-charter interface.....	26
2.5 The charter trip.....	27
2.6 Conclusions: toward a seafaring host and satisfied guest.....	29
References	29
Appendices	31
a. Special Hawaii Charter Fishing Survey: Valuation	31
b. Special Hawaii Charter Fishing Survey: Expenditures	41

List of Tables

1. Return rates of survey instruments distributed by charter captains.....	4
2. Total number and percentage of survey instruments returned by island and estimated size of each island's charter fishing fleet	4
3. Survey instrument return rates by patron response to interview questions.....	5
4. Charter fishing patrons' reported occupations	7
5. Patrons' reported number of previous charter fishing trips	9
6. Charter fishing patrons' scaled importance of motivating factors to go charter fishing in Hawaii.....	10
7. Charter fishing patrons' reported rating of factors for deciding on a specific charter vessel.....	11
8. Charter fishing patrons' reported percentage of chartered fishing trip lengths and types by island.....	12
9. Charter fishing patrons' perceptions about the presence of various pelagic fish species in Hawaii	12
10. Charter fishing patrons' reported number and percentages of final disposition of fish captured on charter fishing trips	14
11. Charter fishing patrons' reported number and weights of fish kept for personal consumption	14
12. Charter fishing patrons' reported number and weight of released fish.....	15
13. Charter fishing patrons' reported species and size of mounted fish, income level, and perception of what should be done with captured billfish	15
14. Charter fishing patrons' reported scaled level of satisfaction with selected trip attributes.....	16
15. Charter fishing patrons' reported expenditures for one day in Hawaii.....	17
16. Charter fishing patrons' reported cost per person to charter a fishing trip - by different trip lengths and types	17
17. Charter fishing patrons' reported fishing-related expenditures.....	18
18. Charter fishing patrons' reported fishing trip gratuities distribution.....	18
19. Comparison between 1984 and 2000-20001 average charter fishing-related expenditures as reported by charter fishing patrons	22

List of Figures

1. Map of Hawaii showing the location of charter fishing harbors sampled	3
2. Charter fishing patrons' reported residence	6
3. Charter fishing patrons' reported annual household income	6
4. Charter fishing patrons' reported educational attainment.....	7
5. Charter fishing patrons' reported destinations considered for vacation other than Hawaii.....	8
6. Charter fishing patrons' reported primary attractions for coming to Hawaii for vacation.....	8
7. Charter fishing patrons' reported importance of charter fishing in decision to come to Hawaii	9
8. Charter fishing patrons' reported sources of information which prompted them to go charter fishing in Hawaii	10
9. Importance of catching a blue marlin in charter fishing patrons' decision to go charter fishing. Patrons were asked <i>"If you knew you were not going to catch a blue marlin on your charter trip today would you still go charter fishing?"</i>	11
10. Charter fishing patrons' responses to <i>"What do you think should be done with billfish caught during your charter fishing trip?"</i>	13
11. Comparison of average charter fishing cost per person to the number of individuals in fishing party for private (P), full- (full), half- (1/2) and three- quarter-day (3/4) fishing trips.....	18
12. Charter fishing patrons' responses to <i>"Would you rather accept a cash gift of \$___ or go fishing with the guarantee of catching a 225 lb marlin?"</i>	19
13. Charter fishing patrons' responses to <i>"Would you accept a cash offer of \$___ to not go charter fishing for the rest of your stay in Hawaii?"</i>	19
14. Charter fishing patrons' reported willingness to pay for different levels of license fees to charter fish in Hawaii	20
15. Percentages of reported reasons why charter fishing patrons would not pay for a license at different license fee levels	20

1. RECREATIONAL PELAGIC CHARTER FISHING PATRON SURVEY

1.1 Introduction

Recreational pelagic charter fishing, defined as trips on six-person vessels that primarily target Istiophoridae (blue marlin, *Makaira mazara*, and striped marlin, *Tetrapturus audax*) and are chartered daily for a fee, has been a popular sport in Hawaii since the early 1900's. The charter industry did not fully develop until after World War II when the military cheaply sold off vessels which were easily converted into fishing vessels thereby reducing the costs of operations. This, combined with the advent of the 'shared trip' innovation brought the cost of charter fishing within reach of the average consumer (Markrich, 1994).

Today recreational pelagic charter fishing is a notable component of tourism in Hawaii. Total generated revenue was estimated to be \$8.1 million in 1982 (Samples et al., 1984), \$17 million in 1990 (Markrich, 1994) and \$16.5 million in 1992 (Sharma et al., 1999). The industry attracts an estimated 77,000 annual participants (Markrich, 1994) and employs approximately 400 captains and crewmembers (Walker, 1997). The Hawaii Department of Land and Natural Resources, Division of Aquatic Resources (HDAR) issued 163 Commercial Marine Licenses (CML) to vessels for charter fishing in 1999 (R. Kokobone (HDAR), pers. comm.). Hamilton (1998) reported an average of 166 charter trips per vessel during a 12 month period in 1996-1997.

Previous studies of Hawaii's charter fishing industry have reported on the Kailua-Kona charter vessel operator and charter patron economics (U.S. National Marine Fisheries Service, 1983), the basic structure and an economic appraisal of charter boat fishing (Samples et al., 1984), the demographics, motivations, expenditures, and valuation of charter patrons (Samples and Schug, 1985), the economic status of recreational fishing in Hawaii including charter fishing (Markrich, 1994), the sociology of the charter fleet (Walker, 1997), and an assessment of the charter fleets' cost and earnings (Hamilton, 1998). The current study further examines the pelagic charter fishing industry in Hawaii by documenting basic demographics of charter fishing patrons. It also assesses the patrons' motivations, related expenses, valuation of the fishing experience in dollar terms, and the characteristics of the quality of their fishing experience. Additionally, specific patron attributes are compared to those reported in a previous study of Hawaii charter fishing patrons (e.g., Samples and Schug, 1985).

This report will provide baseline information for other researchers investigating the pelagic charter fishing industry in Hawaii (e.g., economic assessments of the charter fishing industry as directed by the Magnuson-Stevens Fishery Conservation and Management Act of 1976 (as amended through 1996)¹). It will also provide useful information for the charter fishing industry and Hawaii state tourism agents for marketing purposes. The objectives of the study were met by distributing survey instruments to charter fishing patrons at the end of their fishing trip during 2000-2001.

¹ 104-297

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(3) Research on the fisheries, including the social, cultural, and economic relationships among fishing vessel owners, crew, United States fish processors, associated shoreside labor, seafood markets and fishing communities.

The first section of the report describes the method in which the data were collected along with the results, discussion and conclusion of the charter fishing patron data. Section two describes unstructured interviews and observations of the researchers while collecting data for section one.

1.2 Methods

Charter patron information was collected by distributing mail-in survey instruments to patrons at the conclusion of their fishing trips. Two types of instruments were developed based on previous instruments used by researchers in Hawaii (specifically Samples and Schug, 1985) and elsewhere. A 'valuation' instrument (Appendix A) focused on the worth of charter fishing as perceived by patrons, and an 'expenditure' instrument (Appendix B) focused on costs associated with the trip to Hawaii and the fishing trip. A Hawaii resident ('kama'aina') version of both instruments was developed for use by local charter patrons and a Japanese language version was developed for use by Japanese tourists. Each instrument contained similar demographic and other questions to allow comparison across the range of respondents regardless of survey type. Each instrument contained instructions for proper completion, and a self-addressed stamped envelope was provided for easy return to researchers. An art print of a Hawaiian scene and a recent copy of *Hawaii Fishing News*, a local magazine geared towards fishing enthusiasts, were promised to each respondent as incentives for patron participation. A toll free phone number was also provided for persons with questions or comments. Researchers met with charter fishing industry representatives, letters were sent to charter vessel captains, and a press release was published in *Hawaii Fishing News* in order to inform the industry and general public of the impending study. Pre-tests of the instruments, conducted in the spring of 1999, indicated that charter patrons were able to understand the instruments, and charter vessels captains were deemed an acceptable means to distribute instruments to their patrons.

Wave one of instrument distribution began in July 1999, with participating vessels at the home ports of Nawiliwili and Port Allen on Kauai, Kewalo Basin, Waianae and Haleiwa on Oahu, Kaunakakai on Molokai, Lahaina and Maalaea on Maui, and Honokohau on Hawaii (Figure 1). An average of 32 instruments was distributed to each charter vessel captain interested in participating in the study. Captains were asked to give instruments non-selectively to one member of one or more distinct parties on any given trip. Packets of instruments were also given to three well-known charter agents (one of which catered exclusively to Japanese tourists) to distribute to charter captains they thought would be interested in participating in the study.

Wave two was initiated in November, 2000. Again packets of instruments were distributed to charter captains, but during this wave packets contained only 10 instruments. This was done with the thought that the captains who participated in wave one felt overwhelmed with the large number of instruments and may not have distributed all of them. Only vessels that did not participate in wave one were used in wave two.

During wave two, one researcher visited the fishing ports of Kewalo Basin, Lahaina, and Honokohau in order to distribute instruments directly to charter patrons and to conduct brief interviews with the patrons. Before patrons were approached, researchers sought permission from the charter captain to talk to their patrons and give them an instrument. If the captain gave consent, patrons were approached as they departed the fishing docks and asked three questions:

- 1) *Are you satisfied with the amount of fish you caught today on your charter?*
- 2) *Are you happy with the captain and crew of the vessel you fished on today?*
- 3) *Did you have an overall enjoyable trip today?*

Each patron interviewed was assigned a number which corresponded with the instrument they were given so that return rates could be calculated, especially as they relate to the patrons responses to the interview questions. The purpose of in-person distribution and interviews was to identify any 'distribution' bias (captains only distributed instruments to patrons who they believed would report a favorable fishing experience on the instruments), 'return' bias (only patrons who had favorable fishing experiences returned the instruments) or both. The in-person instrument distribution and interviews also allowed evaluation of the method of using charter vessels captains to distribute instruments.

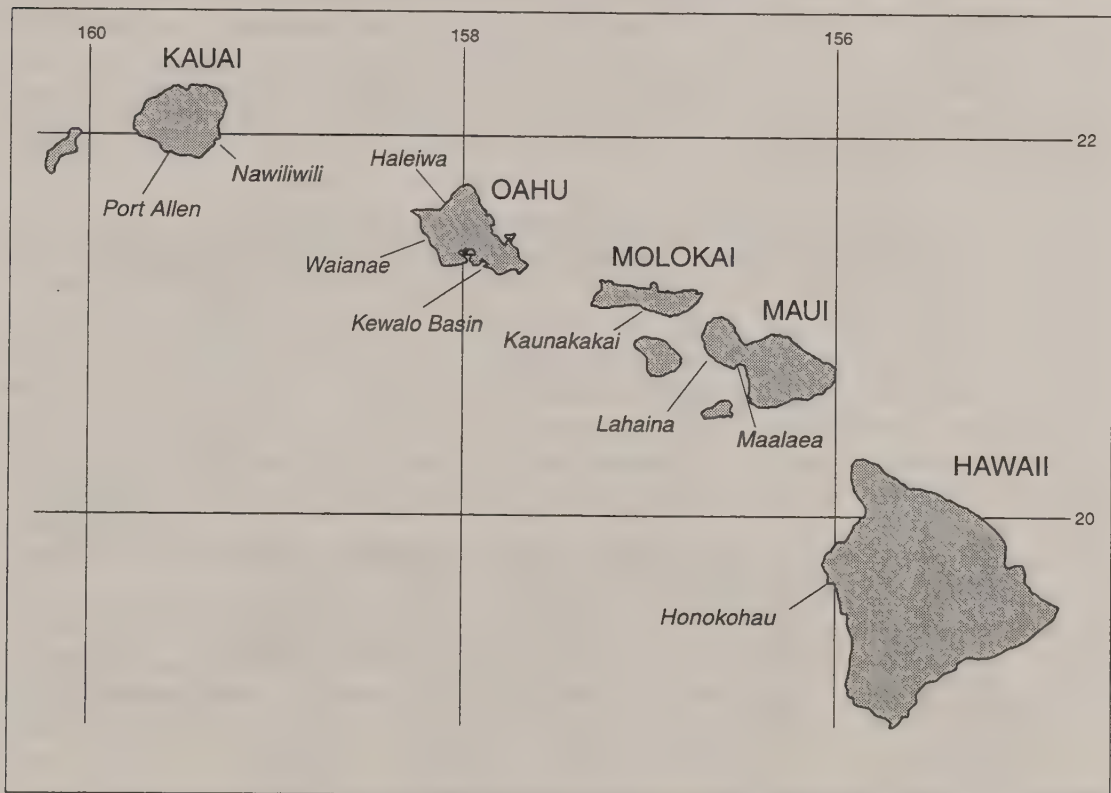


Figure 1. Map of Hawaii showing the location of the charter fishing harbors sampled.

Initially the sampling design for determining the number of instruments distributed per port drew from the work of Hamilton and Huffman (1996) who enumerated active charter vessels across Hawaii. During wave two instruments were distributed to ports with the goal of boosting the number of instrument returns and also to have final instrument returns match the size of each islands fleet in relation to the size of the statewide fleet (e.g., Kauai's charter fishing fleet comprises approximately 5% of the total Hawaiian charter fishing fleet;

therefore the aim was to have approximately 5% of the total instrument returns come from the island of Kauai).

The project also allowed researchers to casually observe charter operators and patrons. Patron-host interactions were observed and documented with the intent of describing and explaining the social, cultural, and economic aspects of the contemporary charter fishing scene and fleet interaction in Hawaii (see section 2).

1.3 Results and Discussion

1.3.1 Survey Instrument Distribution and Response Rates

The survey instrument return rate of the pre-test phase was 60%, which was considered sufficient to use charter captains as the primary distributors of the survey instruments. However, the instrument return rate from waves one and two (17%) was much lower than the pre-test rates. The return rates drastically differed depending upon the source of instrument distribution, 13% for those distributed by charter captains (assuming they distributed all of the instruments they were given) (Table 1) and 70% for those distributed by researchers. The number of returns by island reflects the size of each island's charter fleet in relation to the size of the total Hawaiian charter fleet in the cases of Kauai, Molokai, and Maui but not for Oahu and Hawaii (Table 2).

Table 1. Return rates of survey instruments distributed by charter captains.

Number of Returned Completed Surveys	Number of Vessels
0	20
1-5	29
6-10	9
11-15	6
16-20	1
21-25	0
>25	1

Table 2. Total number and percentage of survey instruments returned by island and estimated size of each island's charter fishing fleet.

Island	Total Returns	% of total returns	estimated # of charter vessels*	% of total vessels
Kauai	12	3	18	8
Oahu	129	33	35	16
Molokai	12	3	3	1
Maui	40	10	27	13
Hawaii	103	26	131	61
Unknown	95	24		
Total	391		214	

*Information from Hawaii Department of Land and Natural Resources and researchers' personal observations.

1.3.2 In-Person Interviews

During wave 2, the researcher approached a total of 132 charter fishing patrons as they departed the fishing docks after their fishing trip (only 5 vessels (8%) did not grant permission to researchers to speak to their patrons). A total of 123 in-person interviews were conducted with one mail-in survey instrument being distributed to each interviewee. Return

rates were essentially equal regardless of how people responded to the first interview question (Table 3). Therefore fishing success had no influence on the instrument return rates. Because 99% of those interviewed replied “Yes” to questions two and three, it does not appear that satisfaction with the captain and crew and overall satisfaction of the fishing trip had any bearing on willingness of the patron to complete and return the instruments.

Table 3. Survey instrument return rates by patron response to interview questions.

Question asked to charter fishing patrons	Yes		No	
	% Replied	% Returned	% Replied	% Returned
<i>Are you satisfied with the amount of fish you caught today?</i>	26	69	74	66
<i>Are you happy with the captain and crew?</i>	99	66	1	100
<i>Did you have an overall enjoyable trip today?</i>	99	67	1	0

In conclusion, no ‘return’ bias was detected by these interviews. No ‘distribution’ bias was detected primarily because most patrons were satisfied with their charter fishing experience. Thus it would not matter if charter captains preferentially distributed instruments to those who they perceived had an enjoyable trip because most had a good trip anyway. It now seems likely that the low instrument return rate from patrons who received their instruments from the charter vessel captains was due to the captains only distributing a fraction of the instruments they were given by the researchers. It must be noted that some captains did distribute all of the instruments they were given. This may, however, introduce biases due to many instrument returns coming from only a few vessels. This potential bias was partially addressed by distributing instruments directly to patrons, which was performed on a random basis (i.e., any vessel that returned to port with patrons and had given permission to the researchers to interview them was subject to interview by researchers. In the instances when two vessels returned simultaneously the patrons who disembarked first were approached.).

Many patrons engaged in a detailed discussion with the researcher during the interview process. It may be possible that, due to meeting the researcher involved in the research project, these patrons were able to identify more closely with the project than the patrons who were given an instrument by the captains. These patrons might have been more willing to complete and return the instrument, which would result in higher return rates compared to patrons who received their instrument from the vessel captains.

1.3.3 Charter Fishing Patron Demographics

Both the expenditure and valuation survey instruments asked the charter fishing patrons basic demographic questions. No instructions were given as to which person in the charter group should complete the survey—this was decided by members of each group.

The vast majority (84%) of the survey respondents were male. It is possible that males assumed the survey completion duty, thereby over-representing males, however, observations by the researchers support survey findings. Figure 2 indicates that most respondents were from the U.S. mainland, with California representing the state with the highest percentage of patrons. Japan and Canada were the main foreign countries represented. Returned instruments indicated that respondents were typically affluent (Figure 3), educated (Figure 4)

and employed in what are typically considered white-collar positions (Table 4). Average age and range of male and female respondents were 43.9 (13-87) and 45.3 (15-75) years, respectively (these data represent the age of the individual who completed the instrument). Most patrons had some charter fishing experience (71%) with an average of 5 (SD=8.3) previous trips taken in Hawaii and 6 (SD=9.5) outside Hawaii. Interestingly 46% of the respondents report getting seasick sometimes or all the time. Observations confirm that some patrons do get sick in even relatively minimally rough conditions, diminishing the quality of the experience.

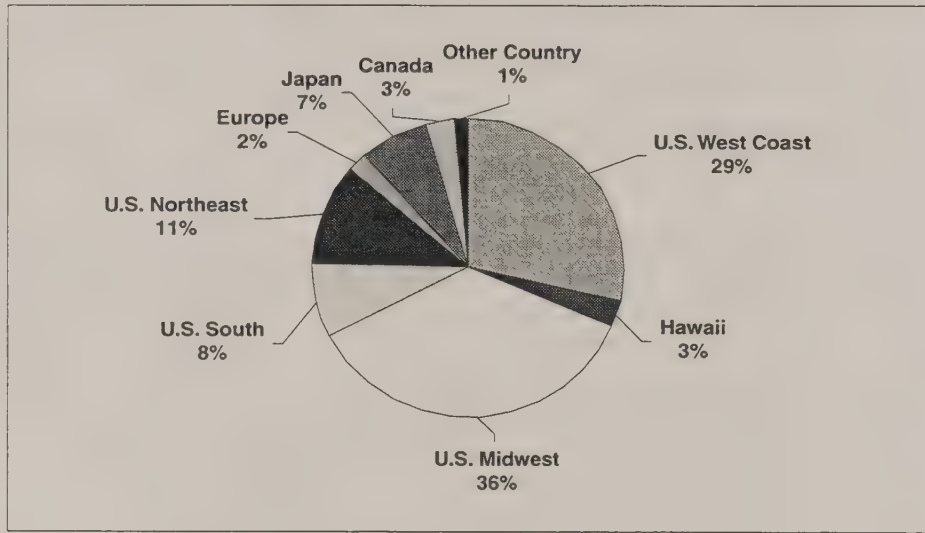


Figure 2. Charter fishing patrons' reported residence.

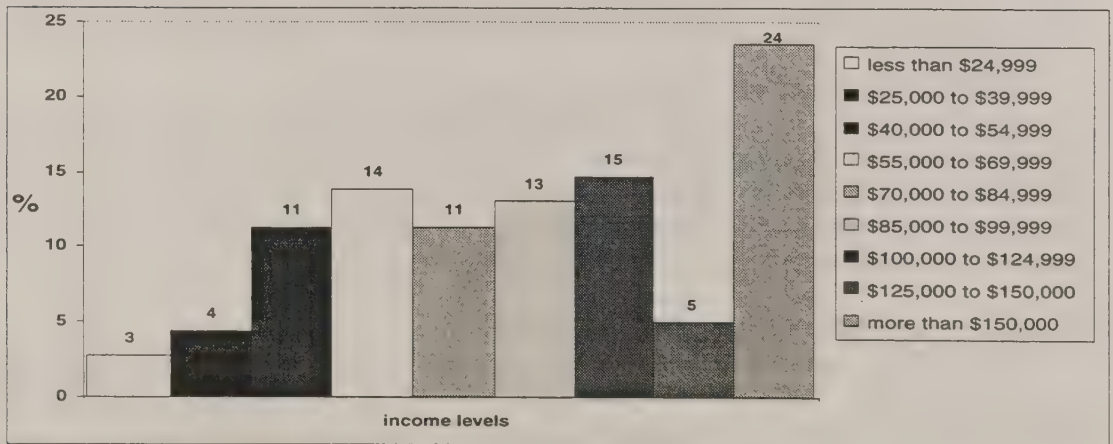


Figure 3. Charter fishing patrons' reported annual household income.

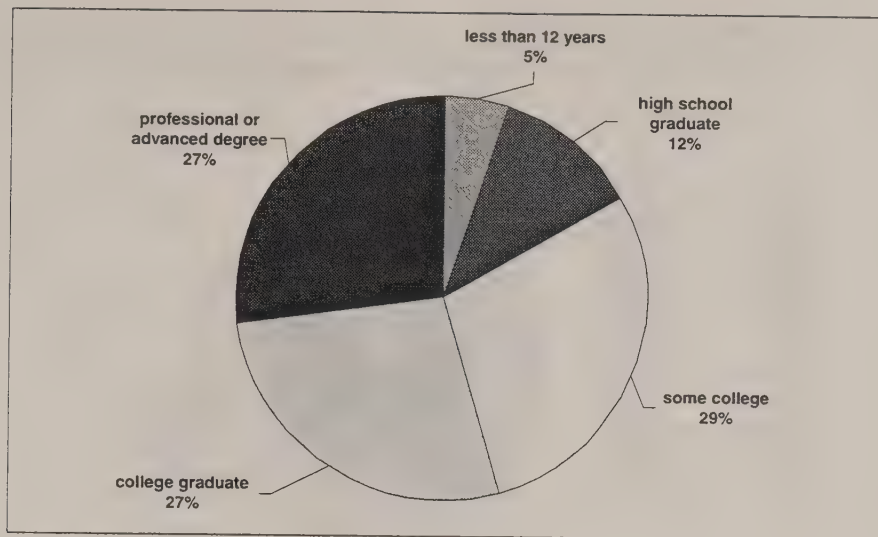


Figure 4. Charter fishing patrons' reported educational attainment (n=375).

Table 4. Charter fishing patrons' reported occupations.

<i>What is your primary occupation?</i>	Frequency	Percent (n=353)
Management/administration	58	16.4
Sales/advertising/marketing	51	14.4
Construction related/contractor	38	10.8
Engineer/architectural design	37	10.5
Retired	31	8.8
Accounting/financial advisory	18	5.1
Education related	13	3.7
Computer related	13	3.7
Self-employed	13	3.7
Medical/health services	11	3.1
Manufacturing	9	2.5
Domestic engineer	8	2.3
Law related	8	2.3
Food/hotel	7	2.0
Student	7	2.0
Other	31	8.8

1.3.4 Hawaii Trip Related Decisions

This section analyses some of the decision-making processes associated with motivations to come to Hawaii and what to do upon arrival. The majority of respondents (79%) did not consider any vacation destinations other than Hawaii. Of those who did consider other destinations Mexico was the first consideration (20%) (Figure 5). The vacation (85%) was clearly the principal motivating factor for coming to Hawaii, compared to those who came for business purposes (7%). Of those who come to Hawaii for vacation the "sun and beaches" (56%) were the most enticing attributes, although "fishing" (18%) was also a fairly significant reason (Figure 6). A high percentage of respondents (79%) indicated having made their decision to go charter fishing before coming to Hawaii, yet it figured as only a

moderately important factor in making the trip (Figure 7) and most report that they would still come to Hawaii even if charter fishing were not available (89%).

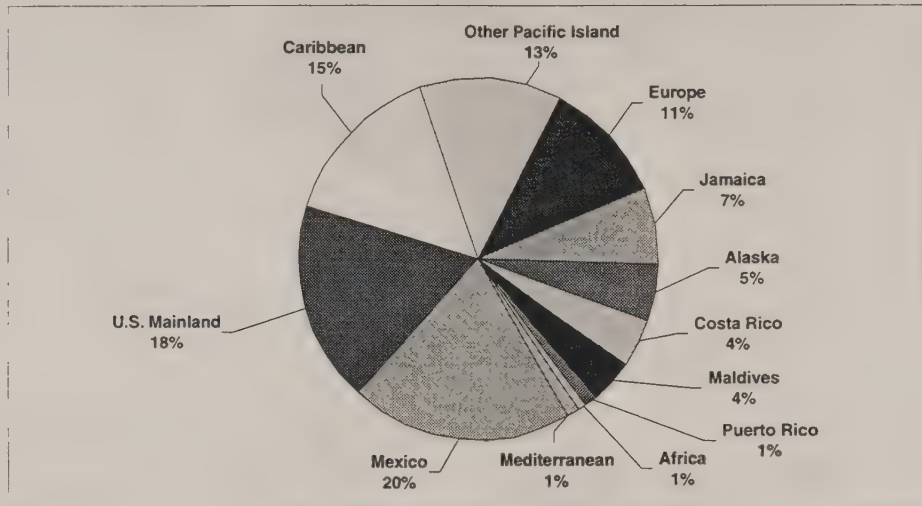


Figure 5. Charter fishing patrons' reported destinations considered for vacation other than Hawaii (n=78).

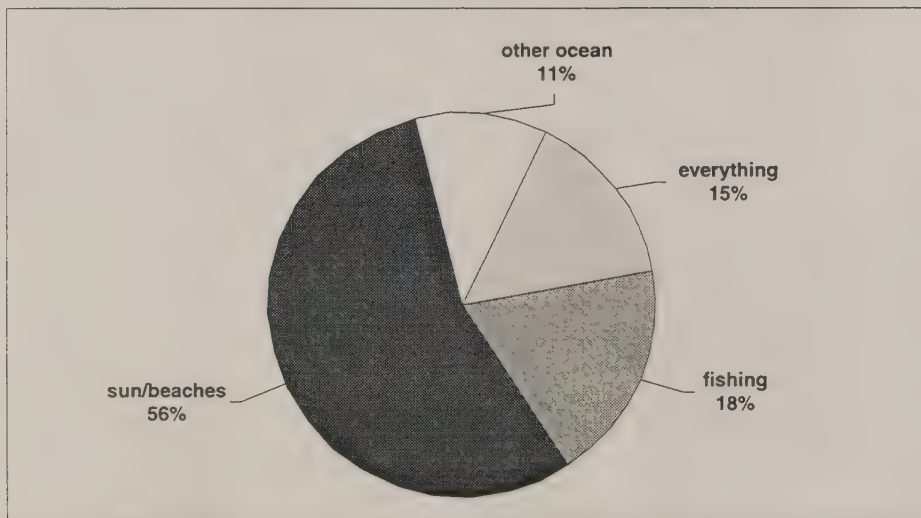


Figure 6. Charter fishing patrons' reported primary attractions for coming to Hawaii for vacation.

Respondents' trips to Hawaii averaged 11 days and ranged from 3 to 65 days. This average is longer than the average length of stay for all Hawaii visitors (8.9 days) (Hawaii State Department of Business, Economic Development and Tourism, Tourism Research Branch, Annual Visitor Research Report (annual) and records). The average size of the respondents' party contained 3 adults (range 1-20), and those who indicated they had children typically brought 2 (range 1-7).

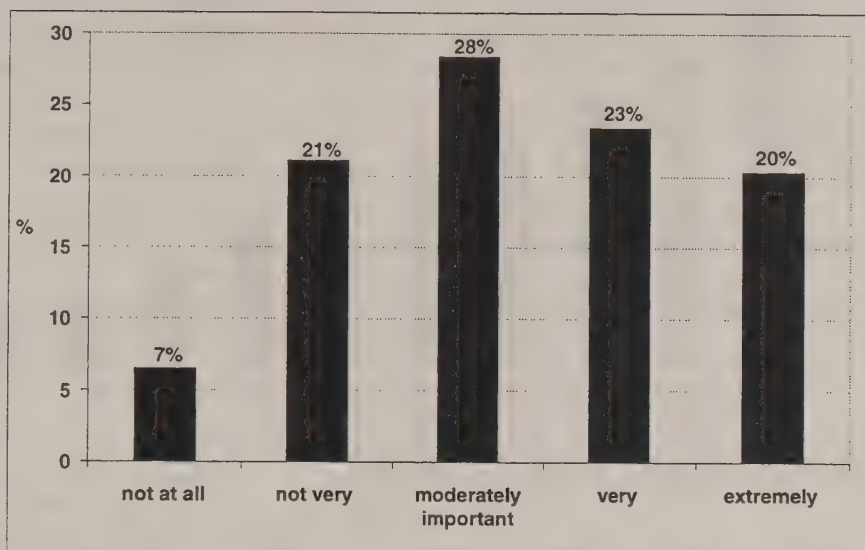


Figure 7. Charter fishing patrons' reported importance of charter fishing in decision to come to Hawaii.

1.3.5 Charter Fishing Trip Related Decisions

When charter fishing patrons were asked *"What prompted you to go charter fishing?"* four sources of information were essentially equal—magazine advertisement (29%), suggestion of a friend (25%), Internet (21%), and personal visit to the harbors (21%) (Figure 8). The response to *"previous fishing experience in Hawaii"* (19%), and observations by the researchers during patron interviews, indicated that there is a moderate amount of repeat customers in Hawaii's charter fishing business. Patrons who reported they had previous charter fishing experience averaged 5 trips in Hawaii and 6 outside Hawaii. Table 5 displays the number of reported previous trips.

Table 5. Patrons' reported number of previous charter fishing trips.

No. of Previous Trips	In Hawaii	Outside Hawaii
1	28	30
2	10	28
3	3	16
4	5	9
5	5	8
6-10	4	17
>11	5	16
Total	60	124

Charter fishing patrons were also asked the importance of specific factors in motivating them to go charter fishing in Hawaii (Table 6). Respondents indicated that factors relating to having fun and an adventure were more important than catching fish for personal consumption and much more important than business purposes. Fighting and catching fish, however, were also very important to many charter fishing patrons.

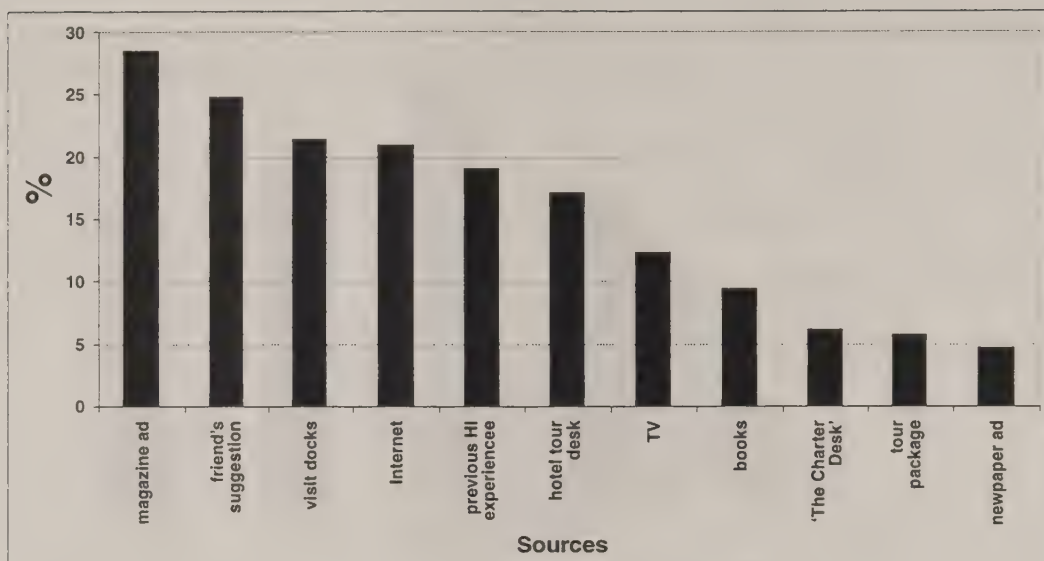


Figure 8. Charter fishing patrons' reported sources of information that prompted them to go charter fishing in Hawaii. The "Charter Desk", a company which books trips for numerous charter vessels, is located at Honokohau Harbor, Hawaii.

Table 6. Charter fishing patrons' scaled importance of motivating factors to go charter fishing in Hawaii.

<i>For each factor listed, please indicate its importance in motivating you to go charter fishing in Hawaii</i>	Reported Level of Importance (%)*			
	n	Not at All Important	Moderately Important	Very Important
Have fun	205	0	6	94
Experience challenge	201	2	22	76
Fight a fish	202	4	27	69
Seek adventure	197	9	29	61
Be on the ocean	202	6	33	61
Share fun with others	201	11	31	57
A convenient way to go fishing	196	11	40	49
Escape routine/tension	197	15	42	44
Learn about nature	197	33	46	21
Develop/test fishing skills	196	42	38	20
Catch fish to share with others	201	43	37	19
Enjoy camaraderie	197	45	39	16
Catch fish to eat personally	199	52	33	15
Catch fish for trophy	194	67	21	12
Demonstrate skills	195	86	11	3
Business-related purposes	193	96	4	0

*Highest percentages are bolded.

Patrons reported that "closest to where I am staying" was the primary reason (51%) for deciding which harbor to fish from. This was expected considering most harbors are located near popular tourist resorts (e.g., the larger Kewalo Basin charter fleet is within a 10 minute

drive of Waikiki, as compared to Haleiwa which is an hour's drive). An individual harbor's catch reputation (25%) seems to play some role in respondent's choice of harbor. However, this is more likely due to the more avid fisherman's decision to fish out of a different island rather than a different port on a specific island (e.g., popular belief is that an avid, serious fisherman is more likely to choose to fish out of Honokohau Harbor, Hawaii rather than any other port on any other island).

With respect to choice of vessel, it is interesting to note that the perceived disposition of the captain and crew ('friendliness') and comfort features of the vessel weighed more heavily in the patron's decision than the vessel's catch rate reputation and species catch record (Table 7). This may be due to the patron having little information on a vessel's previous catches. The price of the charter appears to be only moderately important.

Table 7. Charter fishing patrons' reported rating of factors for deciding on a specific charter vessel.

<i>Please rank the following characteristics as they applied to your choice of which boat to fish from</i>	Percentage by Rating of Importance for Decision*						Mean Rank (Std)
	n	1 (Low)	2	3	4	5 (High)	
Trip cost	200	12	10	32	25	21	3.3 (1.3)
Catch rate reputation	194	29	11	20	17	24	3.0 (1.6)
Species catch record	194	26	15	21	18	20	2.9 (1.5)
Comfort features	201	10	11	26	30	22	3.4 (1.2)
Friendliness captain/crew	199	9	8	12	25	47	3.9 (1.3)

*Highest percentages are bolded.

Patrons were also asked the importance of catching a blue marlin in their decision to go charter fishing. Almost half of the respondents reported they definitely would not go fishing if they knew they were not going to catch a blue marlin, while 38% reported that they definitely would still take the trip (Figure 9).

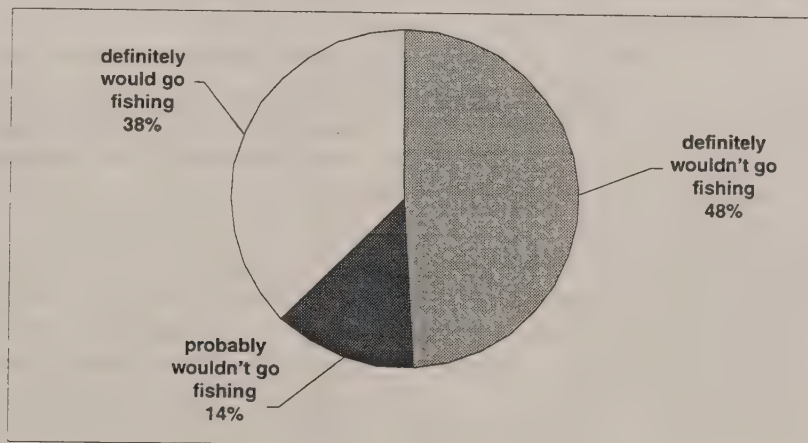


Figure 9. Importance of catching a blue marlin in charter fishing patrons' decision to go charter fishing. Patrons were asked "If you knew you were not going to catch a blue marlin on your charter trip today would you still go charter fishing?"

1.3.6 Charter Fishing Trip Details

Fishing patrons chartered a half-day trip (45%), full-day trip (40%) or three-quarter day trip (15%). Sixty-three percent of the trips were chartered as private trips, meaning one party paid for the entire trip compared to shared trips where the total cost of the trip is shared by multiple distinct fishing parties. As earlier analyses indicated, patrons typically fish with family and friends rather than business associates. Table 8 shows that the types of trips that patrons typically take are not the same across islands. This, however, may be due to the type of trips available at the time of booking.

Table 8. Charter fishing patrons' reported percentage of chartered fishing trip lengths and types by island.

Island	n	Trip Length			Trip Type	
		% Half day	% Three-quarter day	% Full day	% Shared	% Private
Kauai	12	67	17	17	58	42
Oahu	120	28	15	57	38	62
Molokai	11	0	0	100	27	73
Maui	40	33	35	33	56	44
Hawaii	101	57	11	32	17	83

Most respondents did not have intentions of taking other charter fishing trips during their remaining time in Hawaii (75%). A total of 44 half-day and 126 full-day additional trips were planned by 99 people who indicated they were interested in going charter fishing again during their current trip to Hawaii.

1.3.7 Basic Perceptions about Charter Fishing in Hawaii

Table 9 fish shows that respondents, in general, were fairly knowledgeable about some of the fish species that are caught in Hawaiian waters. The majority of respondents also support catch/tag and release ethics as they apply to billfish (Figure 10).

Table 9. Charter fishing patrons' perceptions about the presence of various pelagic fish species in Hawaii.

<i>Before you came to Hawaii did you know the following species could be caught here?</i>	no. respondents perceiving the species can be caught in Hawaii	% respondents perceiving the species can be caught in Hawaii (n= 209)
A'u (marlin in general)	198	95
Mahimahi (dolphinfish)	195	93
Ahi (tuna in general)	184	88
Blue marlin	174	83
Yellowfin tuna	156	75
Ono (wahoo)	148	71
Striped marlin	139	67

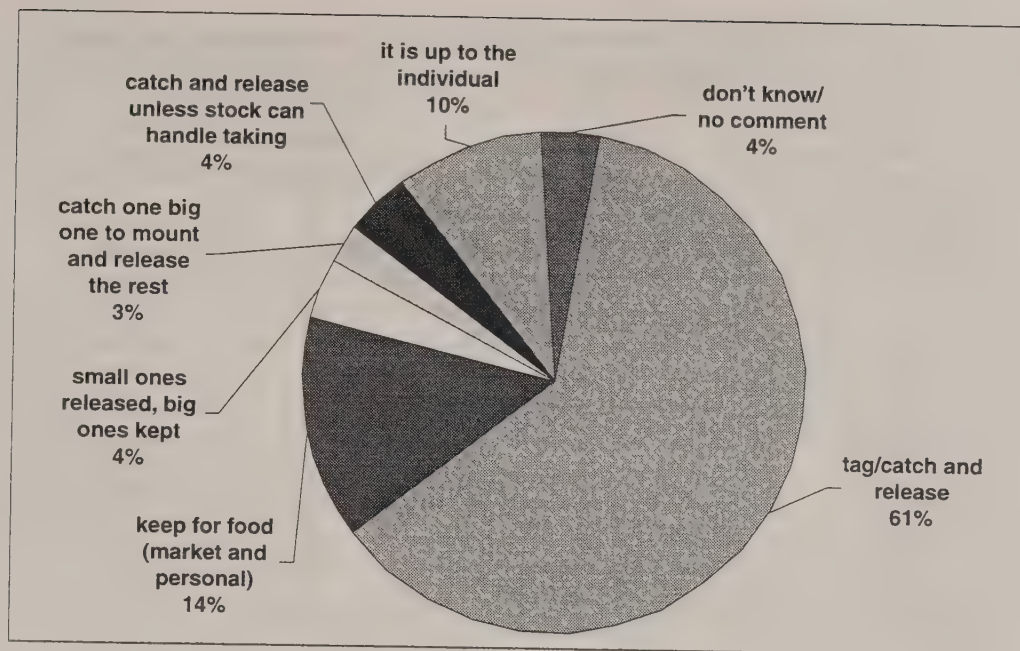


Figure 10. Charter fishing patrons' responses to "What do you think should be done with billfish caught during your charter fishing trip?"

1.3.8 Fishing Success and Disposition of Catch

The word 'captured' is used to describe fishing success rather than 'landed' since some fish were released at sea. In the case of marlin and greater amberjack (*Seriola dumerili*) many were tagged and released. Many small and less valuable species were also released.

Two hundred and ten respondents captured 482 total fish on their fishing trip. Table 10 describes fish that were captured and the final disposition of those fish as reported by respondents. Seventy-four percent of the trips were considered successful because at least one fish was captured. Dolphin (*Coryphaena hippurus*) and skipjack tuna (*Katsuwonus pelamis*) were the most numerous species captured. However, many of the skipjack and small yellowfin tuna (*Thunnus albacares*) were captured for use as live bait. Even though these fish were landed by the patrons many did not consider this a 'successful' catch. Tables 11 and 12 describe the number and sizes of fish kept for personal consumption and those released, respectively. A total of 76 billfish were captured of which nine were reported as being mounted by the patrons. It is interesting to note that 75% of the patrons who mounted a captured fish stated that they prefer catch-and-release when asked what should be done with billfish (Table 13). One possible explanation for this seeming contradiction may be that the fish was dead upon landing or the vessel may have wanted to keep the fish against the patron's wishes. Household income does not appear to have an influence on whether a captured fish was mounted by respondents.

Table 10. Charter fishing patrons' reported number and percentages of final disposition of fish captured on charter fishing trips.

<i>Please describe your boat's catch on this trip</i>	no. captured	% released	% kept for personal consumption	% mounted	% kept by vessel
Dolphin (mahimahi)	155	5	27	2	66
Skipjack tuna (aku)	86	15	41	0	44
Yellowfin tuna (ahi)	63	16	32	0	52
Wahoo (ono)	56	0	16	4	80
Blue marlin	44	34	9	9	48
Greater amberjack (kahala)	25	100	0	0	0
Shortbill spearfish	21	29	38	14	19
Albacore tuna	13	0	0	0	100
Striped marlin	11	64	18	18	0
Barracuda	2	100	0	0	0
Trevally (ulua)	1	0	0	0	100
Grey snapper (uku)	1	0	100	0	0
Unspecified marlin (a'u)	1	100	0	0	0
Pink snapper ('opakapaka)	1	0	100	0	0
Mackerel	1	0	0	0	100
Whitetip shark	1	100	0	0	0
Totals	482	18	25	3	54

Table 11. Charter fishing patrons' reported number and weights of fish kept for personal consumption.

<i>Did you keep the fish?</i>	No. Kept	% Kept	Total Weight (lbs) of Fish Kept	Average Individual Weight (lbs.) of Fish Kept*
Dolphin (mahimahi)	42	27	680	16 (42)
Skipjack tuna (aku)	35	41	349	11 (32)
Yellowfin tuna (ahi)	20	32	215	11 (20)
Wahoo (ono)	9	16	246	27 (9)
Shortbill spearfish	8	38	361	45 (8)
Blue marlin	4	9	735	184 (4)
Striped marlin	2	18	120	60 (2)
Grey snapper (uku)	1	100	11	11 (1)
Pink snapper ('opakapaka)	1	100	11	11 (1)
Total	122	25	2728	

*Number in parenthesis is the number of fish used to determine individual fish weights.

Some warning must be given as to the nature of catch information provided by charter fishing patrons, for there appear to be some potential biases. While the number of total fish caught is deemed fairly accurate, a taxonomic bias may be occurring (patrons may be confused over the use of local names of some species) and/or the weights of individual fish may be misreported, primarily due to inaccurate measurements (many fish were not accurately weighed (by using a scale) but were estimated either while the fish was in the water, aboard the vessel or lying on the docks). For instance, 1-lb albacore tuna (*Thunnus alalunga*) were reported as being captured by respondents. Because 1-lb albacore tuna are not found in Hawaiian waters it is impossible to determine if the captured fish was an albacore tuna that weighed more or if, possibly, it was the commonly caught 1-lb skipjack

tuna. Fish weights that were deemed suspicious were eliminated from this study. In conclusion, the estimates provided in this section, especially fish weights, must be considered unreliable for further analysis (e.g., catch rates, stock abundance).

Table 12. Charter fishing patrons' reported number and weight of released fish.

<i>Was the fish released?</i>	No. Released	% Released	Total Weight (lbs) of Fish Released	Average Individual Weigh (lbs) of Released Fish*
Greater amberjack (kahala)	25	100	419	17 (25)
Barracuda	2	100	20	10 (2)
Striped marlin	7	64	685	98 (7)
Blue marlin	15	34	2355	157 (15)
Shortbill spearfish	6	29	165	28 (6)
Yellowfin tuna (ahi)	10	16	85	9 (10)
Skipjack tuna (aku)	13	15	98	8 (12)
Dolphin (mahimahi)	7	5	112	16 (7)
Totals	85	18	3939	

*Number in parenthesis is the number of fish used to determine individual fish weights.

Table 13. Charter fishing patrons' reported species and size of mounted fish, income level, and perception of what should be done with captured billfish.

Mounted fish	Weight (lb)	Income Level of Angler	<i>What should be done with billfish?</i>
Skipjack tuna (aku)	12	\$40,000-\$54,000	catch and released preferred unless population can support taking.
Blue marlin	602	\$55,000-69,999	prefer catch and release
Blue marlin	589	>\$150,000	prefer catch and release
Blue marlin	510	\$100,000-\$124,000	prefer catch and release
Blue marlin	160	\$25,000-\$39,999	prefer catch and release
Dolphin (mahimahi)	39	\$100,000-\$124,999	prefer catch and release
Dolphin (mahimahi)	36	\$40,000-\$54,999	catch and released preferred unless population can support taking.
Dolphin (mahimahi)	36	\$40,000-\$54,999	prefer catch and release
Wahoo (ono)	22	<\$24,999	prefer catch and release
Wahoo (ono)	25	\$85,000-\$99,999	catch and released preferred unless population can support taking.
Shortbill spearfish	70	\$25,000-\$40,000	prefer catch and release
Shortbill spearfish	70	\$125,000-\$150,000	prefer catch and release
Shortbill spearfish	30	> \$150,000	prefer catch and release
Striped marlin	71	> \$150,000	prefer catch and release
Striped marlin	75	\$40,000-\$54,999	it's up to the individual
Only 15 (3%) of the 482 total pieces captured were mounted for trophies.			

1.3.9 Charter Fishing Patrons' Satisfaction with the Fishing Trip

As indicated earlier (Table 6) charter fishing patrons placed a higher emphasis on having fun than catching fish. Nonetheless, not catching fish or not catching enough fish combine (65%) to become the factor that respondents liked least about their Hawaii charter fishing

experience. The second least desirable aspect of the fishing trip was bad weather/seasickness (15%).

The charter fishing experience offers some desirable attributes, which can at least partially override the negative dimensions of failing to catch fish. When asked “What did you like most about your Hawaii charter fishing experience?” Twenty-nine percent reported that they liked the captain and crew and comfort of vessel the best. This was followed by catching fish (26%) and being on the ocean/seeing whales/weather (25%).

This pattern was confirmed when respondents were asked to rank specific attributes of their fishing experience at the end of their trip (Table 14). The friendliness of the captain and crew, the comfort of the vessel and the overall satisfaction with the fishing trip scored highest and catch rate and catch composition scored lowest.

Table 14. Charter fishing patrons’ reported scaled level of satisfaction with selected trip attributes.

<i>Please rank your trip on each of the following factors</i>	Level of Satisfaction (Percentage by Rating)*						Mean Rating
	n	Low (1)	2	3	4	High (5)	
Captain/crew	208	1	0	6	11	82	4.7
Weather conditions	208	0	5	11	21	63	4.4
Comfort features	209	2	3	18	33	44	4.1
Overall experience	206	3	6	16	32	43	4.0
Trip cost	209	5	11	40	22	22	3.5
Catch rate	207	36	17	15	15	17	2.6
Species caught	202	36	14	21	16	13	2.6

*Highest percentages are bolded.

Overall satisfaction of the charter fishing experience was also apparent in respondents’ answers to other questions. The majority (79%) of respondents answered “Yes” to the question “If you had the chance to repeat this fishing trip, given the same weather, catch, cost and all other factors you experience, would you take the trip again?” Respondents also gave charter fishing in Hawaii a high rank (avg.= 7.4; SD= 2.2) when asked “On a scale of 1 (low) to 10 (high), how would you rate deep-sea charter fishing in Hawaii compared to charter boat fishing in other places you have visited or heard about?”

In conclusion, charter fishing patrons who returned the survey instruments, as well as those that were interviewed by researchers, overwhelmingly indicated that they were at least satisfied with the overall fishing experience, including the captain and crew and comfort of the vessel, despite dissatisfaction with the amount of fish captured. This highlights the importance of the hosts in the critical host-guest interface (see Section 2).

1.3.10 Expenditures

1.3.10.1 Economic Characteristics of the Trip to Hawaii

The reported single most expensive part of a trip to Hawaii was the airfare. Estimated roundtrip airfare/person was \$703. Nine respondents used frequent flyer mileage for their trip to Hawaii. Twenty-six parties, comprising a total of 96 people, purchased tour packages with the average package costing \$1462/person. Table 15 reports on some of the costs associated with visiting Hawaii.

Table 15. Charter fishing patrons' reported expenditures for one day in Hawaii.

<i>Please indicate the total amount of money spent on each item by all members in your party (if not in tour package)</i>	n	Mean Cost (\$)*	Std. dev. (\$)	Range (\$)
Food/beverage**	129	50	42	5-350
Lodging**	84	103	139	15-1,000
Car rental***	96	70	63	20-400
Airfare to other Hawaiian Islands**	67	65	71	2-150
Taxi***	19	20	33	2-150
Gratuities***	28	21	37	2-400
Gifts, souvenirs***	84	99	99	10-600
Clothing**	43	92	101	10-450
Sundries***	51	28	27	2-100

*Only patrons who reported the costs were used in estimates (i.e., \$0 spent were not included).

**Per person based on reported party size.

***Per party of any size.

1.3.10.2 Economics and Valuation Aspects of the Charter Fishing Trip

The reported average cost per person to go charter fishing in Hawaii was \$195 (SD= \$129). Table 16 shows that the cost is dependent on the type of trip (shared or private trip) and the length of the trip (half-day, three-quarter-day, full-day). A statistical analysis (analysis of covariance), however, showed that the effect of the number of people in the fishing party on the cost per person is approximately double that of the type and length of trip combined. Using the average cost of private half-day, three-quarter-day, and full-day trips, Figure 11 illustrates that the average cost per person decreases as the number of people in the fishing trip increases. This is simply due to having more people to share the expense of chartering a vessel.

Table 16. Charter fishing patrons' reported cost per person to charter a fishing trip by different trip lengths and types. Standard deviations are shown in parenthesis.

Trip Length	Trip Type	
	Shared	Private
Full-day	\$147 (\$29)	\$283 (\$167)
Three-quarter-day	\$141 (\$33)	\$188 (\$109)
Half-day	\$96 (\$29)	\$202 (\$104)

Charter patrons were also asked about other expenditures associated with their fishing trip (Table 17). The costs of mounting a catch and the amount spent on fishing tackle were the greatest. Because only five people indicated they were going to have a fish mounted and only three people brought their own fishing tackle, these are considered atypical costs associated with charter fishing in Hawaii (Note: while the valuation instrument asks patrons what was done with the captured fish (of which 16 said mount) the expenditure instrument only asks how much was spent on mounting a captured fish (of which five people reported the cost of mounting)). It is important to note that very little of the money generated by these two expenditures remains in Hawaii because the charter fleet tends to have their mounting done on the mainland U.S. and most of the fishing tackle that people bring on the fishing trip was purchased in their home town. One expenditure of interest is the amount patrons spent tipping the captain and crew of the charter vessel. The average reported tip was \$59 (range \$0-\$350). The distribution of the tips is displayed in Table 18.

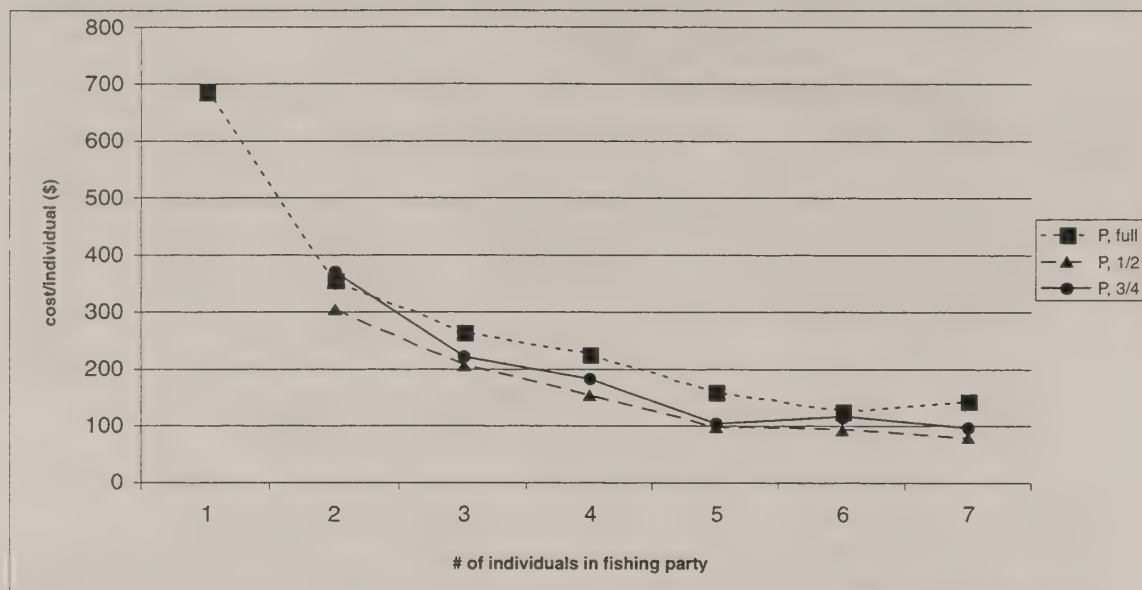


Figure 11. Comparison of average charter fishing cost per person to the number of individuals in fishing party for private (P) full- (full), half- (1/2) and three-quarter-day (3/4) fishing trips. Costs as reported by patrons.

Table 17. Charter fishing patrons' reported fishing-related expenditures.

<i>Please indicate the total mount spent on each item by all members in your party</i>	n	Average cost (\$)	Range (\$)
Gratuities to captain/crew	146	59	5-350
Food/beverages	132	33	3-275
Special tackle	3	1,377	30-4,000
Special clothing	24	53	8-200
Sundry items	88	15	4-55
Fish mounting	5	720	450-1000

*These data do not reflect trip length or party size; only patrons who reported the costs were used in estimates (i.e., \$0 spent were not included).

Table 18. Charter fishing patrons' reported fishing trip gratuities distribution.

Tip Value \$	Frequency	Percent (n=153)
0	23	15
1-25	39	25
26-50	41	27
51-75	13	8
76-100	23	15
101-200	8	5
>200	6	4

A contingency valuation method was used to estimate the charter fishing patron's monetary valuation of charter fishing above and beyond the costs to charter a vessel (Samples and Schug (1985) use the term "consumer surplus"). Patrons were asked three contingency

valuation questions. The first gave the patron a choice of receiving a cash gift or having an absolute guarantee of landing an average size (225 lb) Pacific blue marlin during the charter fishing trip. Greater than 85% of the patrons chose the marlin over cash levels under \$500 and 66% chose the marlin rather than \$1000 gift (Figure 12). The second question gave the patron a choice of a cash offer rather than going charter fishing for the remainder of their trip to Hawaii. Greater than 85% of the patrons opted to go fishing over cash levels under \$250; however, only 31% choose fishing over levels greater than \$250 (Figure 13). It appears, therefore, that most patrons would rather fish than accept monetary compensation. However, patrons were more willing to accept the money when they were not guaranteed the marlin.

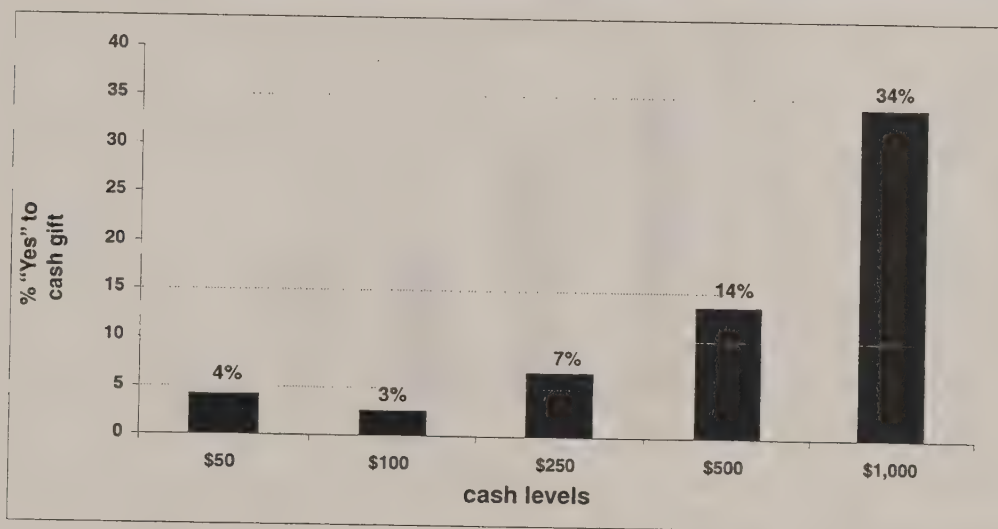


Figure 12. Charter fishing patrons' responses to "Would you rather accept a cash gift of \$___ or go fishing with the guarantee of catching a 225 lb blue marlin?"

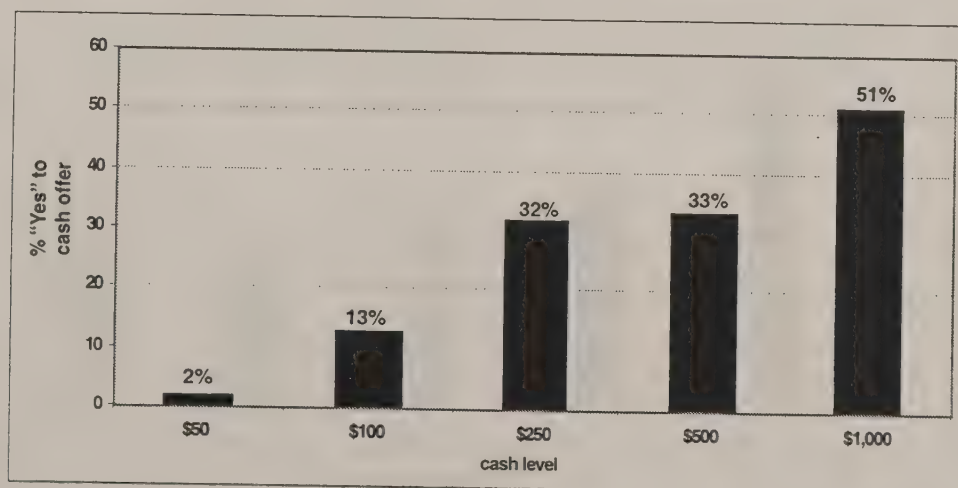


Figure 13. Charter fishing patrons' responses to "Would you accept a cash offer of \$___ to not go charter fishing for the rest of your stay in Hawaii?"

The final contingency valuation question asked charter fishing patrons if they would be willing to pay for a daily saltwater license (currently no saltwater license is required to sport fish in Hawaii). If respondents indicated they would not be willing to pay they were queried if this was due to the license fee being too high or if they don't believe there should be a license requirement. The majority of patrons responded they would be willing to pay a license fee up to a certain point (Figure 14). At fee levels up to \$50, objections to the license fee were primarily due to patrons not believing in having to pay for a fishing license, but when faced with higher license fees, objections were based on the belief that the fee was too high (Figure 15).

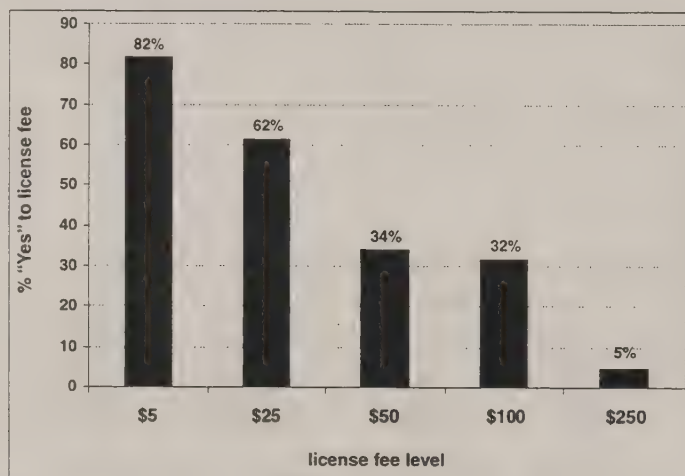


Figure 14. Charter fishing patrons' reported willingness to pay for different levels of license fees to charter fish in Hawaii.

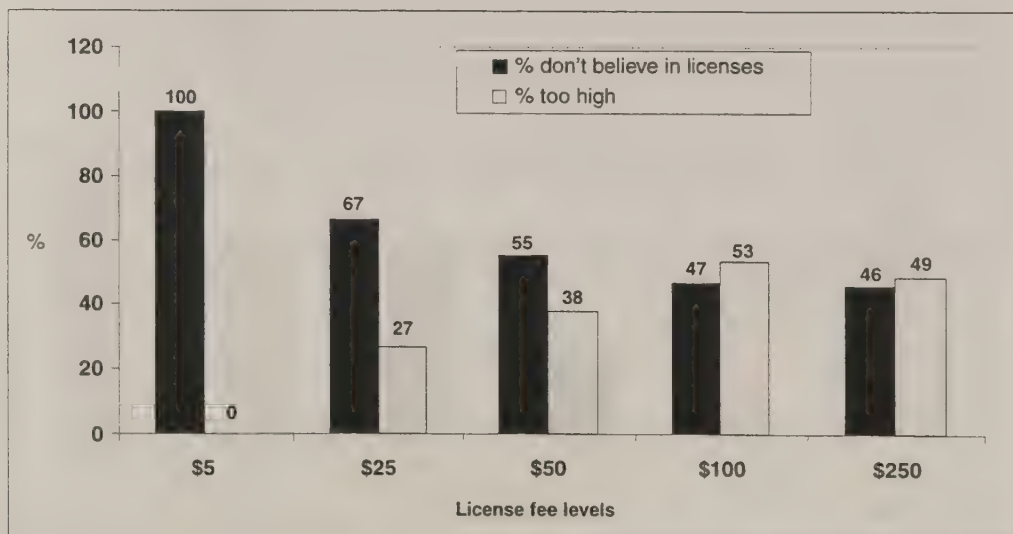


Figure 15. Percentages of reported reasons why charter fishing patrons would not pay for a license at different license fee levels.

1.3.11 'Highrollers' Comparison

An attempt was made to determine if there were any differences between 'highrollers,' those charter fishing patrons who are serious sportfishers and come to Hawaii specifically to fish, and normal patrons, those who view charter fishing as an ordinary 'tourist'-type activity.

Respondents who matched the following criteria were considered highrollers.

- 1) answered "fishing" to *"If you came to Hawaii for a vacation what was your primary reason for choosing Hawaii for your destination?"*
- 2) answered "no" to *"Would you still come to Hawaii if charter fishing was not available?"*

A total of 29 (7%) respondents matched the above criteria and were therefore considered potential highrollers. The highrollers were compared to normal patrons to see if there were differences in their behaviors and expenditures. Differences between the highroller and normal patron demographics such as age, income, education, and reported instances of seasickness were not significant (two sample *t*-test). Highrollers primarily came from Japan (29%) and California (25%). There were no differences in respondents' perception of fishing in Hawaii compared to other places or in the patrons' overall satisfaction of the fishing experience. As expected, highrollers did place a higher value on the importance of charter fishing in their decision to visit Hawaii (two sample *t*-test; *p*-value <0.001). Highrollers also planned to take additional fishing trips while on their current trip to Hawaii, although there was no difference in the mean number of half- and full-day trips planned between the two groups. More highrollers also indicated they would repeat the fishing trip, given the same weather, catch, cost and all other factors (99%) compared to normal patrons (79%). It did not appear that highrollers were spending more money or time in Hawaii, but they were better tipplers towards the vessels (average highroller tip was \$129, average normal patron tip was \$47).

Four highrollers completed contingency valuation questions at one level (gift of \$250, offer of \$250 and willingness to pay a license fee of \$50). One hundred percent of the highrollers declined the gift and the offer of \$250 and 50% were willing to pay the license fee of \$50. A lower percentage of normal patrons declined the same gift and offer amount, 93% and 64% respectively, and 33% were willing to pay the license fee of \$50. However, due to the low number of highrollers who received valuation instruments that contained the contingency valuation questions it was difficult to determine if their responses truly differed from normal patrons.

1.3.12 Comparison with other Hawaii Charter Patron Studies

In 1984, Samples and Schug (1985) conducted a similar examination of Hawaii's charter fishing patrons. Table 19 compares some of the 1984 and 2000 expenses to go charter fishing. These numbers may be misleading because the 1984 study does not report the type of trip (shared or private) and, as Table 16 shows, the difference between a private and shared trip of the same length can be considerable. In addition, the 1984 study was only conducted at Kewalo Basin, Oahu.

Many of the charter fishing patrons' demographics were similar between the two studies. Samples and Schug (1985) report the majority of patrons were visitors; more specifically fairly affluent, middle-aged males. Patrons' motivation to fish and their satisfaction of the fishing experience were also identical in that they also found that "Charter fishing was not a particularly important factor influencing the typical visitor's decision to come to Hawaii."

and “Patrons were motivated to go charter fishing by the desire to experience a fun recreational activity.” More importantly “Patrons were generally satisfied with their fishing experience, even if no fish were caught.”

Table 19. Comparison between 1984 and 2000-20001 average charter fishing-related expenditures as reported by charter fishing patrons.

<i>Please indicate the total mount spent on each item by all members in your party</i>	Average Cost (\$) (Samples and Schug, 1985)*	Average Cost (\$) 2000-2001**
Charter fee	84.54	195
Gratuities to captain/crew	3.60	59
Food/beverages	8.41	33
Special tackle	0.61	1,377
Special clothing	0.65	53
Sundry items	2.88	15
Fish mounting	21.46	720

These data do not reflect trip type or party size.

*Only patrons who fished out of Kewalo Basin were surveyed.

**Only patrons who reported the costs were used in estimates (i.e., \$0 spent were not included).

One of the highlights of the Samples and Schug (1985) study was “...catching fish is not the sole purpose of taking a charter boat trip. Nevertheless, patron satisfaction is closely tied to the chance of being able to catch a marlin, sailfish or some other type of billfish.” and the results of the current study clearly agree with this statement.

1.4 Summary

This report assesses several aspects of the recreational pelagic charter fishing patrons experience including their demographics, motivations, related expenses, economic valuation of fishing in dollar terms, and the quality of the fishing experiences. Objectives were met by distributing packets of mail-in survey instruments to charter vessel captains to give to their patrons and by researchers directly distributing instruments to patrons. Due to the low return rate by patrons who received their instrument from the captains, it is not recommended that further studies utilize this method as the primary source of survey instrument distribution to charter fishing patrons. The return rate of instruments distributed by the researchers (62%) was similar to that of Samples and Schug (1985), who also distributed mail-in surveys via trained researchers. However, it may be considered too costly and time consuming to have researchers distribute instruments directly to patrons. Interestingly, in comparing 11 patron survey designs, Ditton et al. (1991) reported the lowest response rate (31%) occurred with a mail survey that required the avid participation of vessel operators.

An attempt was made to match the amount of instrument returns to the size of each particular island’s charter fleet in relation to the total number of vessels in the charter fleet. This was done in order to draw fleet-wide conclusions of the charter fishing industry. In the cases of Kauai, Molokai, and Maui the number of returns matched the size of the charter fleet; this was not the case for Oahu and Hawaii. Oahu had greater returns relative to the size of its fleet and Hawaii had less. This may complicate some of the estimates because they are fleet-wide rather than island specific estimates.

Charter fishing patrons who responded to the survey hail primarily from the U.S. mainland and most visit Hawaii in small groups of family and/or friends. Most are educated, middle-aged males. The high percentage of males in this study is similar to that noted in other studies (Samples and Schug, 1985; Carls, 1976; Zangri et al., 1980). Accurate comparison of household income is difficult without standardized dollar figures, but it does appear that pelagic charter anglers, in general, report relatively high incomes.

Most patrons indicated that they decided to fish in Hawaii before their actual arrival, but generally speaking, fishing is not the primary attraction for travelling to Hawaii. Once on the water, patrons want and do have fun (with the exception of some reported seasickness). Most respondents reported that catching fish is important and that not catching fish is a source of dissatisfaction, but they also report that the comfort aspects of the vessel, the relationship with the captain and crew and being on the water were extremely important.

Expenditures appear to span a wide range, but airfare to Hawaii, lodging, food and gifts are most costly for patrons responding to this study. Charter fees may present a considerable expenditure to some but are willingly paid for the angling experience. Tips are not always forthcoming, especially when no fish are caught, but some patrons do extend themselves in this respect.

With respect to valuation of the charter fishing experience in Hawaii, most patrons report wanting to fish rather than accept monetary compensation, and most are willing to pay a minimal license fee. There are limits to the value patrons assign to their fishing experience, and these are reached in the contingency valuation exercises. The majority reject license fees after a certain point. These rejections, however, are based on ideological grounds before this point is reached, whereas afterwards they are based on economical grounds. The distribution of willingness-to-pay responses, as well as patrons' demographics and satisfaction with the fishing experience, is quite similar to that noted by Samples and Schug (1985).

Despite the overall dissatisfaction with the amount of fish caught, the vast majority of patrons in this sample report that they would repeat the trip given the conditions encountered. Patrons also report that Hawaii scores quite favorably when compared to other fishing destinations. This reported high level of satisfaction of the Hawaii charter fishing experience may prove useful for groups interested in promoting tourism and pelagic charter fishing in Hawaii. Both quantitative and qualitative (see Section 2) methods indicate that good relations between the captain/crew and the patron constitute a key factor in the overall satisfaction of the fishing experience.

2. THE GUEST-HOST INTERFACE: A DESCRIPTION AND ASSESSMENT OF THE CULTURE AND ECONOMICS OF CHARTER FISHING IN HAWAII

2.1 Introduction and Background

This section draws on observation and other social science research methods to describe charter fishing experiences in Hawaii. Particular attention is given to relationships between the patron and vessel operator, and the effect of these on the patron's experience as a tourist.

Social and economic assessments of Hawaii's charter fleet conducted to date have provided valuable information for resource management purposes. The survey work of Samples and Schug (1985), for instance, was useful in that it analyzes the place of charter

fishing in the minds and pocketbooks of visiting tourists. That research has been used to inform the work of tourism agencies such as the State of Hawaii Department of Business, Economic Development and Tourism (DBEDT). Markrich (1994) also contributes to understanding of charter fishing and tourism by providing a useful historical and contemporary analysis of the scene. This section seeks to further understanding of charter fishing in the context of tourism in Hawaii but through a qualitative approach that addresses some current social theoretical issues in tourism studies.

This section is written largely in third person narrative, but the descriptions and explanations are based on review of archival data, non-reactive and participant observation, and data generated through interviews with charter fishing captains, crew, patrons, booking and travel agents, other fisheries researchers, fishery managers, and government officials. This is not intended to suggest that the following necessarily represents an ultimate statement of truth about charter fishing. The rationale for this section is intended to address potential utility for fisheries managers, students of tourism theory, and the needs of Hawaii's tourism industry with regard to charter fishing.

2.2 Fishing as Tourism: A Sociocultural and Economic Theoretical Framework

In the case of charter fishing economics, the relationship between the host (captain and crew) and guest (charter patron) is critical, and insofar as host desires return business from guest, every effort is taken to ensure the guest enjoys the experience. Navigating a vessel upon the ocean with the vested interest of catching migrating fish and satisfying the charter patron presents unique challenges. Fortunately, not every guest goes charter fishing with the elusive motive of landing a fish. The casual customer often seems to recognize that success at bringing in fish has a lot to do with luck and is frequently satisfied merely with the newness of the experience—the salt spray, the hunt, ‘being on the ocean.’ There is something mysterious and wonderful about the sea and leaving familiar ground to tread upon it. For many visiting fishermen, avid and novice alike, the value of crossing the threshold of land and sea compensates for the dollars paid the host. The hosting captain likes this in that it reduces the burden of catching fish that day. However, those guest anglers with the greatest likelihood of offering significant future investment to the hosting captain do engage in charter fishing with the explicit motive of catching fish. This directly challenges the host to produce.

2.3 Contemporary Charter Fishing

With some recent modification, the Kona Coast of the Big Island has kept its turn-of-the-century reputation as a favored destination for affluent fishing travelers to pursue big marlin. But Kona Coast charter operations now also cater to the visitor of average income and have developed arrangements with inter-island airline and auto rental companies to transport customers to Honokohau Harbor. This is the largest charter port in Hawaii, with a total of about 124 charter vessels. Business for the ten boats at Maalaea, Maui tends to lag relative to other ports due to its distance from any significant population center, chronically high winds, and rough waters. The 18 charter boats at the harbor in Lahaina have enjoyed great success through close proximity to a center of Hawaiian tourism and perennially light winds. Kewalo Basin (Honolulu) was the original budget charter center, and its 19 boats continue to

cater to walk-up tourists and repeat customers visiting Waikiki. Lighter tourist traffic on other islands has apparently restricted the expansive growth of charter fishing there, though harbors such as Kaunakakai on Molokai, and Lihue and Port Allen on Kauai retain a small part of the market from repeat visitors.

Markrich (1994) asserts, and the current research also indicates, the existence of three somewhat distinct types of charter patrons. Local resident fishing enthusiasts are occasional customers at best and generally unlikely to participate given personal ownership of fishing boats or membership in social networks in which it is possible to fish with friends or family who own vessels. Section one indicates that only 3% of the charter fishing patrons were from Hawaii. Middle-class tourists from the U.S. mainland and Canada are an active group; as seen in the previous section, their participation in charter fishing is rarely the sole or most important reason for coming to Hawaii. Finally, there are relatively affluent visitors who come to Hawaii with the primary motive of charter fishing, usually targeting giant blue marlin. These highrollers typically choose the Kona coast of the Big Island as their destination, or perhaps Lahaina on Maui. This group typically has a preferred captain and vessel in mind and will pay great sums in pursuit of fish.

In Hawaii and other Pacific waters, large billfish are occasionally sent to the taxidermist for trophy mounting. The practice may seem contrary to economic reasoning from the angler's perspective in that it is very expensive, costing thousands of dollars in some cases, depending on the size of fish. But it supports Urry's (1990) theories about travel enhancing social status. By bringing home a trophy marlin, the fishing traveler now owns a visible sign of his journey and hunt, and a conversation piece encouraging its continual re-telling.

Hawaii charter operations are also somewhat unique in that the vessel keeps much of the catch for sale at market. This can comprise a good part of a captain and crew's profit, especially when trips are successful, though the phenomenon varies somewhat by port (Hamilton, 1998). In other parts of the U.S. the patron typically has the option of keeping the fish. There are some deviations from this Hawaii-specific custom, with a few captains seeking to increase customer satisfaction and repeat business, especially at Honokohau Harbor. Some anglers become disgruntled when denied fish they caught, believing or experiencing elsewhere that the catch should be part of the benefits of paying the charter fee. One customer confided that he had big salmon sent home from Alaska "all the time," and that he told the captain he should be allowed to take home the big yellowfin tuna (*Thunnus albacares*) he caught. He reported being angry when the captain agreed that he could but didn't have any arrangements for helping him package the fish.

Profit is also gained through tipping, which can be considerable, especially for highroller trips, or minimal from visiting fishermen with less experience. Both the captain and deck hands would like tips, but deck hands especially expect them. Of course, a successful trip often leads to better tipping, especially for highrollers whose motives have been satisfied.

The distinction between owner-operators and captains who work for owners is important. Fishing vessels are expensive to maintain and operate, hence owner-captains have a vested interest in keeping the operation in the black. Captains who work for boat owners may have less vested interest in the success of the business, and so there is considerable turn-over and transfer of these captains between vessels in the fleet (Walker, 1997). At the positive end of the spectrum are captains who work toward success of the business either for themselves or for interested owners who pay them well. It can be posited with confidence that the economic imperative and drive for a successful business in the long term tends to

communicate well in interactions with patrons, resulting in increased likelihood of return business.

2.4 The Tourist-Charter Interface

While there reportedly are some U.S. mainland-based efforts to attract anglers to Hawaii, most average tourists come to Hawaii for a variety of reasons not directly related to fishing. There may be some prior inclination to fish, perhaps as a result of previous experience in Hawaii or more likely elsewhere, but the more generalized enticements of pleasant climate, unique culture(s), and non-fishing recreational activities bring the tourist to Hawaii. Thus, the charter fishing operation desiring business from other than, or in addition to, the highroller population must engage in marketing. This can occur through advertisement in phone book and magazine ads, activities brochures, or through local television or radio.

Activities desks and stores are particularly effective in garnering business, and close relationships develop, for a percentage, between activities promoters and charter operators. This is similar to the mutually beneficial relationship between the hotel concierge and charter operator wherein prospective clientele are referred, with proper incentive, to select operations. The travel agent may also engage in such interactions, although that interaction is usually more distant. Travel agencies rarely specialize in proffering charter operations, but they are an important interface between airlines, auto rental companies, and charter operations as represented through organizations such as the *Kona Charter Skipper's Association* (KCSA). Memberships in groups like the KCSA or listing with *The Charter Desk*, a fishing charter-specific booking agent based at Honokohau Harbor ensures, for a fee, that the vessel will be presented to visitors wanting to fish and thus reduces the need for operators to engage in their own advertising. Bookings booths serve to draw foot traffic to charter fishing in places where tourist center and harbor are in close proximity as at Lahaina and Kewalo. As noted earlier, this situation may increase bookings in these locations. But Lahaina captains also report that they are booked for months in advance, indicative of business from patrons who have decided to fish before coming to Hawaii. Internet websites are playing an increasingly important role in charter advertising.

An important form of advertising related to the main subject of this section is word-of-mouth. This is true for all harbors, but given the distance of Honokohau and Maalaea from tourist foot traffic, new business in those harbors is particularly reliant on good reports from satisfied customers. Thus, operations in all harbors benefit from successful trips.

It is difficult to measure success in charter fishing, however, because casual anglers are typically so taken in by the mere experience of leaving solid ground to experience the open sea. Many anglers report that catching fish is an exciting but incidental occurrence. But this should not detract from the importance of catching fish. A trip with a big catch is *definitely* a successful trip which gets great conversational mileage by anglers, captain, and crew alike. However, the rarity of this situation, it can be argued, may be fairly universally understood. That is, it is fairly universally understood that fishing is large part luck, and this understanding tends to absolve the charter captain who brings his patrons home empty-handed. If fish are present and the captain and deck hand can't bring the patrons to success, then something besides luck is amiss. But that is where the experience of the captain and crew is vital and well-advertised (and from the captain's perspective hopefully perceived as important), the logic being that if this or that captain, with all of his years of experience can't

succeed, then none can. A trip with no catch is often argued (and from the captain's perspective hopefully absolved) as merely a matter of poor luck or the absence of fish.

In light of what many say about fish catches being in decline, charter fishing marketers recognizing the trend, and believing that some patrons will have a negative experience in the absence of fish and so speak badly of the operation, have begun to emphasize the positives. This includes the captain's (purported) vast experience, the vessel's advanced technology, its record catches, and the collateral benefits of fishing aboard spacious and well-equipped charter vessels. Some charter operations have begun to emphasize the collateral eco-tourism aspects of fishing. For instance, charter vessels on Kauai increasingly advertise the views of the Na Pali Coast that can be enjoyed while fishing. This is reflected, too, in the competitive advertising strategies used by bookings agents as at Lahaina, where fishing charter booths and whale-watching booths are directly adjacent.

2.5 The Charter Trip

Marketing strategies are important, but in the end it may be that the quality of the charter experience and the probability that word-of-mouth advertisement will be positive are most directly dependent on the relationship between hosting captain and fishing guest during the course of the fishing trip. Even in cases where the fishing is good, the experience can be diminished by grumpy, cynical, or lackadaisical captains and/or deck hands. Conversely, when fishing is poor, the good humor of captain and crew, their friendliness and willingness to teach fishing and share knowledge about the ocean environment mitigates an empty creel. The ability to affect this positive experience for the guest is the measure of true experience for the captain and crew and underlies the long-term economic success of the operation. Catching fish is often a more highly valued outcome in the case of visiting highrollers than it is for visiting tourists, but in both cases, transmission of a good overall experience is what guarantees repeat business and free word-of-mouth advertisement. In some cases captains appear to rely on a good deck hand to augment happy relations below the tower. Charter vessels always have an elevated platform or tower from which the captain navigates, monitors the electronics, and searches for signs of the presence of fish, including birds, rubbish lines, logs, and so forth. He is thus necessarily somewhat removed, elevated from the activity on deck.

In addition to mundane gear and vessel preparation and maintenance duties, and entertainment, deck hands must also act as teachers. This obviously requires great patience and sensitivity, particularly in cross-cultural situations. I was impressed during a recent charter trip with a deck hand's ability to communicate with a Japanese national who knew no English. The deck hand would look the novice angler in the eye, use hand gestures, smile, and basically do whatever was necessary to ensure the man understood the point, but without losing patience. When the time came to reel in a fish, the Japanese fisherman was ready, and was visibly overjoyed as he landed the creature.

Knowledge of the marine environment is an extremely valuable attribute for a deck hand, providing material for instruction, entertainment, and general conversation. The unexpected arrival of a pod of pilot whales during a recent charter trip converted an otherwise increasingly stagnating trip into a temporarily exciting eco-tourism experience for many of those on board. Captain and mate witness such events on a regular if not daily basis, but their ability to transcend the effects of routine and/or to communicate their true interest in creatures of the

ocean in this case enabled them to further already considerable excitement. The ensuing conversation lasted for over one hour.

While captains have control over their own behavior and the manner in which they interact with patrons, and conscientious deck hands work to insure a good experience for customers, neither has control over weather or sea conditions, nor can they always control the physiological experience of their ocean-going guests. Motion sickness has shortened many fishing trips, with deep thanks from the afflicted for quick transport back to stable ground. Other disoriented and nauseous anglers are more stoic and try to ride it out, or are forced by the peer pressure of their healthier but uncomprehending counterparts to do so.

A description of fishing trips and explanation of motives therein would be incomplete without some mention of camaraderie between guests. While individual shares are commonly purchased, the norm is to fish with a partner or a group. For an observer and listener, the comical historical particulars of relations between friends are often highlighted on board, and the events of past fishing trips are a common subject. Entry into a new environment sometimes seems to lead to comparatively uninhibited conversational behavior. Although not every interaction between strangers is positive, the unique nature of the trip and environment tends to bring guests closer. By mid-trip, anglers who were strangers at the dock may be seen engaging in lively conversation and by the end of the trip call each other new friends. Clearly, good interactions between patrons are beneficial to the charter operation, making for a better experience all-around, and reducing the need for entertainment by the deck hand who can then attend to other duties.

Although there is much in the experience of fishing at sea that can serve to keep anglers occupied, the motive of catching fish always remains important. When the reel screams and rod bends, the atmosphere on the vessel is visibly heightened and those aboard enter a world of intense activity and anticipation. That the fish may ultimately be taken or free itself is, during the moment of *hanapa'a* (term used in Hawaii for hook-up), not an overwhelming factor of consideration for the visiting angler for, at that juncture, time stands still and the person in the fighting chair typically enjoys the thrill of the moment. Ideally the fish will be landed, though it is sometimes lost. But, no matter, as the qualities of the critical moments of hooking up and fighting the fish gradually subside, the guest is left with a fish or with a slack line and a story of the fight and what might have been.

In sum, from an operational perspective, successful charter fishing requires skill, luck, and the presence of fish on one hand, and good humor, patience, knowledge, and level-headedness on the other. When these factors come together during a trip, there is a tangible sense of accomplishment. The captain feels good, the deck hand is exhilarated, and the anglers are impressed with themselves and their hosts. Further, the charter operation stands to benefit in economic terms as the fish is sold at market or sent taxidermist (vessels receive a commission from the taxidermist), as the angler calculates a good tip, and thinks perhaps with more determination of returning to fish again. The trip back to the harbor is a lively one. This is the best scenario. The trip back can also be a happy one even with an empty fishbox, the visitors having achieved good memories of the hunt, a fight perhaps, and visions of the ocean realm. The chance for return business and a good tip has not been sacrificed by impatience or bad tempers.

The experience of finding and catching fish is reportedly increasingly difficult. Landed fish reportedly are more frequently left out of the charter fishing equation. Thus, although there is attribution of blame from within the industry to external sources and now nascent

collective efforts to address that problem through lobbying and participation in the fishery management process, the more business-minded hosts in the charter fleet increasingly see good business sense in providing the best all-around experience possible to its guests, regardless of the presence of fish.

2.6 Conclusions: Toward a Seafaring Host and Satisfied Guest

This section reviewed selected aspects of Hawaii's charter fishing experience, ultimately arguing the importance of good host-guest relationships in a climate of diminishing resources (as reported by many participants) and competing fisheries. While some anglers come to Hawaii to catch big fish, most visitors who engage in the activity do so for a variety of reasons. Important among these is the whole experience of getting on a boat and entering what is often perceived as an entirely unique environment. Catching fish is usually the primary intent, and when that occurs in conjunction with good relations on board, a positive experience is magnified. In the latter case, where catching fish is desired but not critical, the relation of hosts and guests involves a variety of interactions which, if successful, and in the absence of seasickness, tends to ensure return business and positive word-of-mouth advertisement about the operation, regardless of whether fish are landed. Given the findings to date of the previously described survey, the participating charter captains appear to be treating their patrons well and providing them with satisfying experiences.

While not readily quantifiable, interactions between host and guest on charter vessels have broader implications for Hawaii's tourist economy, and the study of these have implications for students of tourism theory. In providing a good experience to visitors, the charter operators have fulfilled tourists' desires for new experience and for the experience of Hawaii and the ocean realm that contains it. This kind of experience undoubtedly perpetuates the idea that Hawaii is an attractive destination for visitation. In studying the interaction between host and guest in this context, understanding the dynamics of tourism-related social interaction and its economic correlates is furthered. In this case, it is clear that the economic uncertainties of the tourism enterprise are minimized when the host avidly pursues satisfaction of the guest, allowing the tourist the best possible experience in a challenging physical and social environment.

REFERENCES

- Carls, E.G. 1976. Long Island Boat Fisherman. Sea Grant Report, State University of New York and Cornell University, Ithaca, NY.
- Ditton, R.B., Gill, D.A., and C.L. MacGregor. 1991. Understanding the market for charter and headboat services. *Marine Fisheries Review*, 40(8):8-13.
- Hamilton, M.S. 1998. Cost-earnings study of Hawaii's charter fishing industry. SOEST 98-08, JIMAR Contribution 98-322. Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, University of Hawaii.
- Hamilton, M.S. and S.W. Huffman. 1997. Cost-earnings study of Hawaii's small boat fishery, SOEST 97-06, JIMAR Contribution 97-314. Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, University of Hawaii.
- Markrich, M. 1994. Status report (1990) on the economic characteristics of ocean recreation in Hawaii. Planning document for the State of Hawaii Department of Business, Economic Development and Tourism, Ocean Resources Branch, Honolulu.

- Samples, K.C., Kusasabe, J.N., and J.T. Sproul. 1984. A description and economic appraisal of charter boat fishing in Hawaii. National Marine Fisheries Service, Southwest Fisheries Science Center Administrative Report H-84-6c.
- Samples, K.C., and D.M. Schug. 1985. Charting fishing in Hawaii: A study of their demographics, motivations, expenditures and fishing values. National Marine Fisheries Service, Southwest Fisheries Science Center Administrative Report H-85-8c.
- Sharma, K.R., Peterson, A., Pooley, S.G., Nakamoto, S.T., and P.S. Leung. 1999. Economic contributions of Hawaii's Fisheries. SOEST 99-08, JIMAR Contribution 99-327. Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, University of Hawaii.
- Urry, J. 1990. *The Tourist Gaze—Leisure and Travel in Contemporary Societies*. London: Sage Publications.
- U.S. National Marine Fisheries Service. 1983. The 1976-78 Studies of the Kailua-Kona, Hawaii, billfish fisheries: Charter boat operators component. National Marine Fisheries Service, Southwest Fisheries Science Center Administrative Report H-83-4.
- Walker, J. 1997. Sociology of Hawaii charter boat fishing. SOEST 97-02, JIMAR Contribution Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, University of Hawaii.
- Zangri, A.G., Dysart, D.J., and L.A. Wible. 1980. Survey of partyboat passengers to summarize and analyze recreational demand for partyboat fishing in California. U.S. Department of Commerce, National Oceanic and Atmospheric Association, National Marine Fisheries Service Administrative Report LJ-80-14c.

Appendix A
Special Hawaii Charter Fishing Survey: Valuation

Special Hawaii Charter Fishing Survey: Valuations

Dear Charter Angler:

Mahalo nui loa for volunteering to help us with this important research, conducted by the University of Hawaii's Joint Institute for Marine and Atmospheric Research (JIMAR). Results will be used to help maintain a healthy pelagic resource and charter fleet in Hawaii, and contribute to a better understanding of Hawaii's tourism economy. All information you provide will be kept strictly confidential. Individual responses will be grouped for statistical analysis without names or identifiers. If you have any questions or comments about the project, please call me at (808) 983-5741.

Thanks again!,

Joseph O'Malley, JIMAR Fisheries Research Specialist

(1) What is your state or country of residence?

(2) What was your primary reason for traveling to Hawaii? *(Please check only one)*

Vacation _____ Business _____

Other (please fill in) _____

(2a) If you came to Hawaii for a vacation what was your *primary* reason for choosing Hawaii for your destination? *(Please check only one)*

Sunshine and beaches _____ Fishing _____

Other ocean activities (*e.g., snorkeling, sailing, kayaking, etc.*) _____

Other (please fill in) _____

(3) When you were planning your trip did you also seriously consider other destinations?

No _____

Yes (*please list*) _____

(4) When did you first consider going deep-sea fishing in the State of Hawaii?

Before leaving the mainland or your country of residence _____

After arrival in Hawaii _____

Please answer this question if you checked "Before Leaving the Mainland" on Question 4:

(4a) What importance did deep sea fishing have in your decision to visit the State of Hawaii?

(Please circle a high number if, for example, you came strictly to go deep sea fishing. Circle a low number if deep sea fishing was only incidental to your visit)

Not at all
Important

0

1

2

3

Extremely
important

4

(5) Would you still have come to Hawaii if deep sea fishing was not available here?

Please circle your response: Yes No

(6) Did you take a full, half, or three-quarter day fishing trip today?

Please circle your response: Full day 3/4 day Half day

(7) Was your fishing trip today a shared trip or did you book the entire boat for your group?

Please circle your response: Shared Just Our Group

(8) What was the charter fee (cost) for this fishing trip (not including tips)? \$ _____

(9) How many people came to Hawaii with you on this trip? _____

(10) How many people (besides yourself) fished with you today?

	Number
Crew (include captain and all deckhands)	
Family Members	
Friends	
Business Associates	
Other Patrons (on shared trips)	
Others (please specify)	

- (11) Do you plan to take any more deep-sea charter boat fishing trips *besides this one* during your visit to Hawaii?

No _____ Yes _____

If yes, how many full-day trips? _____ How many 1/2 or 3/4-day trips? _____

- 12) We are interested in learning what factors motivated you to go charter fishing in Hawaii. For each factor listed, please indicate its importance in motivating you to go charter fishing in Hawaii. (*Please check the appropriate box for each factor*)

MOTIVATING FACTOR	LEVEL OF IMPORTANCE		
	NOT AT ALL	MODERATELY	VERY
To catch fish to eat personally			
To have fun			
To escape the daily routine and relieve tensions			
To catch a fish to share with family/friends			
To seek adventure			
To be with other people with similar interests			
To learn about nature			
To fight a fish			
To be on the ocean			
To experience a fishing challenge			
To have a convenient way to go deep sea fishing			
To develop fishing skills			
To establish/maintain business contacts			
To demonstrate fishing skills to others			
To share a recreational experience with friends and family			
To catch a fish to be mounted			
For other reasons (<i>please specify</i>)			

(13) How did you decide which port or harbor to fish from on this trip?

(please check all that apply to you)

Closest to where I am staying _____ Best reputation for high catch rates _____
Lowest cost _____ Greatest selection of boats _____
Best reputation for calm waters _____ Best reputation for blue marlin catches _____
Other (please fill in) _____

(14) Was this your first ever deep-sea charter boat fishing trip? Yes No

(14a) If no, how many deep-sea charter fishing trips have you taken in the past five years?

How many in Hawaii? _____ How many outside of Hawaii? _____

(15) What source(s) of information prompted you to go charter fishing in Hawaii?

(Please check all answers that are true for you)

Magazine ads or articles _____ Television program or movie _____
Newspaper ads or articles _____ Tour package plan _____
Hotel tour desk _____ Personal visit to boat docking area _____
The Charter Desk _____ Suggestion of friends _____
Internet Information _____ Previous experience fishing in Hawaii _____
Other (please specify) _____

(16) Before you came to Hawaii did you know that the following species could be caught in Hawaii? *(Please circle yes or no for each species)*

Tuna (ahi, in general)	Yes	No
Yellowfin tuna	Yes	No
Mahi-mahi (dolphin fish)	Yes	No
Ono (wahoo)	Yes	No
Marlin (a'u, in general)	Yes	No
Striped marlin	Yes	No
Blue marlin	Yes	No

(17) Please describe your boat's catch on this trip *(as best as possible)*

	Species or type caught <i>(e.g., mahi-mahi)</i>	Approximate weight <i>(in pounds)</i>	Was the fish released? <i>(yes or no)</i>	Did you keep the fish? <i>(yes or no)</i>	Did you have the fish mounted? <i>(yes or no)</i>
Fish #1					
Fish #2					

Fish #3					
Fish #4					
Fish #5					
Fish #6					
Fish #7					
More!? (list)					

- (18) We are interested in your feelings about the charter fishing trip that you took today. Please rank your trip on each of the following factors with *1* indicating *low* satisfaction and *5* indicating *high* satisfaction. (Please circle your ranking for each item)

	<u>Low</u>			<u>High</u>	
Charter trip cost	1	2	3	4	5
Charter trip catch rate (quantity)	1	2	3	4	5
Charter trip catch composition (species)	1	2	3	4	5
Charter vessel comfort	1	2	3	4	5
Charter trip weather conditions	1	2	3	4	5
Friendliness of charter captain and crew	1	2	3	4	5
Overall charter fishing experience	1	2	3	4	5

- (19) In your words, what did you like *most* about your Hawaii charter fishing experience?

- (20) In your words, what did you like *least* about your Hawaii charter fishing experience?

- (21) If you had the chance to *repeat* this fishing trip, given the same weather, catch, cost and all other factors you experienced, would you take the trip again? (*Please circle one*)

Yes No

- (22) How important to you is *personally* catching a blue marlin while deep sea charter fishing in Hawaii? (*Please check one*)

If I knew I wouldn't catch a blue marlin I definitely wouldn't take a charter fishing trip in Hawaii _____

If I knew I wouldn't catch a blue marlin I probably wouldn't take a charter fishing trip in Hawaii _____

If I knew I wouldn't catch a blue marlin, I definitely would still take a charter fishing trip in Hawaii _____

- (23) What was the name of the vessel you fished on today?

- (24) Are you prone to seasickness? (*Please circle one*)

Always Never Sometimes

- (25) Please rank the following characteristics, one through five, as they applied to your choice of which boat to charter fish from (*1 being the least important and 5 being the most important*)

FEATURE YOUR RANKING	YOUR RANKING (1-5)
Catch record in terms of quantity of fish caught	
Catch record in terms of types of fish caught	
Price of trip	
Comfort features of boat	
Friendliness of captain and crew	
Other features (please specify)	

- (26) On a scale of 1 (low) to 10 (high), how would you rate deep-sea charter fishing in Hawaii compared to charter boat fishing in other places you have visited or heard about? (You should give it a high rating if fishing in Hawaii compares favorably with other places and a low rating if it compares unfavorably—please circle just one number.)

Low

Medium

High

1

2

3

4

5

6

7

8

9

10

The next series of questions has absolutely no connection with current or future plans for fisheries management in Hawaii. We are only interested in finding out how much an activity such as deep-sea fishing is actually worth. In the set of questions below, we ask you to put yourself in some hypothetical situations. None of these situations are real, but we hope you will answer as if they were real situations.

- (27) Suppose that you were planning to go charter fishing in Hawaii and were offered a choice between: (A) receiving a cash gift of \$50, or (B) having an absolute guarantee of landing an average size (225 lbs.) Pacific blue marlin during your upcoming charter fishing trip. It is up to you to choose whether to accept the cash gift, or have the guarantee of catching a marlin. Which option would you choose? (Please check just one response).

Accept the Cash Gift _____

Go for the Guaranteed Marlin _____

- (28) Suppose that a daily saltwater fishing license was required to go deep-sea charter fishing in Hawaii. Without a license you would not be able to go charter fishing. Suppose that the cost of the *daily* license was set at \$5. This fee would be simply added to the cost of a charter fishing trip. Would you be willing to pay this fee to be able to go charter fishing in Hawaii for a day? (Please check the appropriate response)

Yes, I would pay the fee _____

No, I would not go fishing _____

- (28a) If you checked no above, is it because (please check one):

The license fee is too high _____, or

You don't believe there should be a license requirement _____

- (29) Suppose that you were heading to the docks to take a full-day charter exclusive fishing trip in Hawaii and someone offered you \$50 not to go charter fishing for the remainder of this trip to Hawaii. If you accepted the cash offer you would have to cancel your planned fishing trip. All deposits you may have made would be refunded and there would be no financial loss to you due to your cancellation. You would still be able to fish from shore, or engage in other marine-related activities. **Would you accept the cash offer and *not* go charter fishing for a day?** (*Please check the appropriate response*).

Yes, I would accept the cash and ***not*** go fishing _____

No, I would go fishing and give up the cash _____

In this section we would like to ask you some questions about your background which will help us compare your answers to those of other people. *All of your answers are strictly confidential.*

- (30) How old are you? _____ years

- (31) Are you male or female? female _____ male _____

- (32) What is the zip code where you normally live? _____

- (33) Please check the response that comes closest to your 1998 total household income before taxes.

Less than \$24,999 _____	\$55,000 to \$69,999 _____	\$100,000 to \$124,999 _____
\$25,000 to \$39,999 _____	\$70,000 to \$84,999 _____	\$125,000 to \$150,000 _____
\$40,000 to \$54,999 _____	\$85,000 to \$99,999 _____	More than \$150,000 _____

- (34) How many years of school have you completed? (*Please check one response*)

Less than 12 years _____ Graduated high school _____

Some college _____ Graduated college _____ Professional or advanced degree _____

- (35) What is your primary occupation? Please be as specific as possible. (*If retired or unemployed, please give your former occupation.*)

My occupation _____

My former occupation _____

My spouse's occupation _____

- (36) Some people catch billfish for sport and release them. Others catch billfish to eat or to sell at the market. Still others mount them. What are your ideas on this subject?

(37) Please provide any comments you might have about this survey or our research project:

Be sure to include your name and address so we can send you an art print of a beautiful Hawaiian scene with our thanks for your participation in this project!

Your Name _____

Address _____

Please return the survey in the self-addressed stamped envelope that is clipped to the back cover!

Appendix B
Special Hawaii Charter Fishing Survey: Expenditures

Special Hawaii Charter Fishing Survey: Expenditures

Dear Charter Angler:

Mahalo nui loa for volunteering to help us with this important research, conducted by the University of Hawaii's Joint Institute for Marine and Atmospheric Research (JIMAR). Results will be used to help maintain a healthy pelagic resource and charter fleet in Hawaii, and contribute to a better understanding of Hawaii's tourism economy. All information you provide will be kept strictly confidential. Individual responses will be aggregated for statistical analysis without names or identifiers. If you have any questions or comments about the project, please call me at (808) 983-5741.

Thanks again!,

Joseph O'Malley, JIMAR Fisheries Research Specialist

(1) What is your state or country of residence?

(2) What was your primary reason for traveling to Hawaii? *(Please check only one)*

Vacation _____ Business _____

Other (please fill in) _____

(2a) If you came to Hawaii for a vacation what was your primary reason for choosing Hawaii for your destination? *(Please check only one)*

Sunshine and beaches _____ Fishing _____

Other ocean activities (e.g., snorkeling, sailing, kayaking, etc.) _____

Other (please fill in) _____

(3) When you were planning your trip did you also seriously consider other destinations?

No _____

Yes *(please list)* _____

(4) When did you first consider going deep-sea fishing in the State of Hawaii?

Before leaving the mainland or your country of residence _____

After arrival in Hawaii _____

Please answer this question if you checked "Before Leaving the Mainland" on Question 4:

(4a) What importance did deep sea fishing have in your decision to visit the State of Hawaii? *(Please circle a high number if, for example, you came strictly to go deep sea fishing. Circle a low number if deep sea fishing was only incidental to your visit)*

Not at all
Important

Extremely
important

0

1

2

3

4

(5) Would you still have come to Hawaii if deep sea fishing was not available here?

Please circle your response:

Yes

No

(6) Did you take a full, half, or three-quarter day fishing trip today?

Please circle your response:

Full day

3/4 day

Half day

(7) Was your fishing trip today a shared trip or did you book the entire boat for your group?

Please circle your response:

Shared

Just Our Group

(8) How many adults and how many children (under 18) came with you on your trip to Hawaii?

_____ Adults

_____ Children

(9) How many people (besides yourself) fished with you today?

	Number
Crew <i>(include captain and all deckhands)</i>	
Family Members	
Friends	
Business Associates	
Other Patrons <i>(on shared trips)</i>	
Others <i>(please specify)</i>	

- (10) Do you plan to take any more deep-sea charter boat fishing trips *besides this one* during your visit to Hawaii?

No _____ Yes _____

If yes, how many full-day trips? _____ How many 1/2 or 3/4-day trips? _____

- (11) If your trip to Hawaii was part of a tour package, please estimate the *total* cost of the package, including airfare, for all persons. If your trip was *not* part of a package, please skip and proceed to question 12.

a) Total Cost of *Tour Package* _____ b) Number of Persons _____

- (12) How much was spent altogether for airfare for your travel party's round trip tickets to and from the State of Hawaii? (if the fare was part of a package deal, check below)

Group total airfare: \$ _____ Number of Persons in group _____

→ Please check here if airfare is included in a tour package _____

- (13) We want to get an idea of expenditures made by persons in your fishing party (family, friends, etc.) for the fishing trip you took today. **Please indicate the total amount of money spent on each item by all members in your party** by cash, check or credit card. If an item was not purchased, please place a 0 in the blank. If an item was part of your *tour package plan*, do not fill in dollar amounts but please *check the appropriate line*. If there was no charge for a particular item please enter **NC** (no cost).

Type of Expenditure	Total Cost
Charter Fees	
→ Charter fees were included in tour package _____	
Taxi fare	
Food and beverages intended for consumption on fishing trip	
Special fishing tackle	
Special clothing (e.g., rain gear, hats, sunglasses)	
Sundry items (e.g., suntan lotion, seasick pills, film)	
Tips to boat captain and crew (all gratuities)	
Fish mounting (as estimated by captain/crew)	
Other fishing-related expenses (please specify)	

- (14) Were you in the State of Hawaii all of yesterday? (Please circle one)

Yes No

- (15) We are trying to get an idea of **how much money was spent yesterday in the State of Hawaii by everyone who came with you to Hawaii**. Please indicate the amount you and other people in your immediate travel party spent for each items by cash, check or credit card. If an item was *not* purchased please place a 0 in the blank. If an item was included in your *Tour Package*, do not fill in amount but please check the appropriate line. If there was no charge for an item please enter NC (no cost).

Type of Expenditure	Total Cost
Food and beverages including tips (<i>yesterday</i>)	
Included in tour package _____	
Lodging (<i>yesterday</i>)	
Included in tour package _____	
Entertainment and sightseeing tours (<i>yesterday</i>)	
Included in tour package _____	
Car rental, including gas (<i>yesterday</i>)	
Included in tour package _____	
Inter-island airfare (<i>yesterday</i>)	
Included in tour package _____	
Other transportation such as taxi, bus and parking	
Tips to airport and/or hotel personnel	
Gifts, souvenirs	
Clothing	
Sundry items (<i>e.g., film, suntan lotion, etc.</i>)	
Other expenditures (<i>please specify</i>)	

(15b) How many people are included in the above costs? _____

(15c) Are you prone to seasickness? (*Please circle one*)

Always

Never

Sometimes

(16) How many days and nights are you spending in the State of Hawaii during this visit? (*Please indicate for each*)

_____ days

_____ nights

In this section we would like to ask some questions about your background which will help us compare your answers to those of other people. All information is strictly confidential.

(17) How old are you? _____ years

(18) Are you male or female? female _____ male _____

(19) What is the zip code where you normally live? _____

(20) How many years of school have you completed?

Less than 12 years _____ Graduated high school _____ Some college _____
Graduated college _____ Professional or advanced degree _____

(21) Please check the response that comes closest to your 1998 total household income before taxes.

Less than \$24,999 _____	\$55,000 to \$69,999 _____	\$100,000 to \$124,999 _____
\$25,000 to \$39,999 _____	\$70,000 to \$84,999 _____	\$125,000 to \$150,000 _____
\$40,000 to \$54,999 _____	\$85,000 to \$99,999 _____	More than \$150,000 _____

(22) What is your primary occupation? (Please be as specific as possible. If retired or unemployed, please, give your former occupation)

My occupation _____
My spouse's occupation _____
My former occupation _____

(23) What was the name of the vessel you fished on today? _____

(24) In your words, what did you like *most* about your charter fishing experience today?

(25) In your words, what did you like *least* about your charter fishing experience today?

(26) Some people catch billfish for sport and release them. Others catch billfish to eat or to sell at the market. Still others mount them. What are your ideas on this?

(27) Please provide any comments you might have about this questionnaire or our project:

Please include your name and address so we can send you an art print of a beautiful Hawaiian scene and a copy of Hawaii Fishing News with our thanks for your participation in this project!

Your Name _____

Address _____

Please return the survey at your earliest convenience in the self-addressed stamped envelope clipped to the back cover!



Western Pacific
Regional Fishery
Management Council



University
of Hawaii
at Manoa